



*Crossing Oceans and  
Connecting People to Improve  
Mental Health for Older Adults*



2024 IPA  
INTERNATIONAL CONGRESS  
SEPTEMBER 25-27, 2024

*Buenos Aires* ARGENTINA

# Book of Abstracts

21<sup>st</sup> IPA International Congress  
25 –27<sup>th</sup> September 2024 •  
Buenos Aires, Argentina

Draft

## Opening Keynote:

Title: The Complex Nature of Mental Health Issues in Older Age

*Alexander Kalache (Brazil)*

*Needs summary*

Title: Global Dementia Strategy: Current Stage and Challenges

*Liliana Urbina (Argentina)*

Dementia is a critical global health issue affecting more than 55 million people, and this number is projected to rise to nearly 80 million by the end of the decade. It is the seventh leading cause of death, disproportionately affecting women, with most cases occurring in low- and middle- income countries (LMICs). The economic burden of dementia is immense, with annual costs estimated at \$1.3 trillion in 2019, expected to more than double by 2030. Half of these costs are due to informal care, primarily provided by women, who face significant impacts on their physical and mental health.

Despite its severity, dementia receives insufficient attention. In May 2017, recognizing dementia as a public health priority, the World Health Assembly approved the Global Action Plan on the Public Health Response to Dementia 2017-2025, which serves as a comprehensive blueprint for policymakers, international, regional, and national partners, and the WHO. The plan addresses the issue through seven strategic areas: policy; awareness; risk reduction; diagnosis, treatment, care and support; strengthening health information systems, and research. However, significant gaps remain in diagnostics, national dementia plans, and research. To facilitate the monitoring of the global action plan, WHO has created the Global Dementia Observatory (GDO), a portal that collects national data on 35 key indicators across the seven strategic areas of the global action plan. Complementing the Observatory, WHO launched a Knowledge Exchange Platform, a repository of best practice examples aimed at fostering mutual learning and multidirectional exchange among regions, countries, and individuals, to facilitate global action. The GDO serves as a monitoring and accountability tool, guiding countries in policy implementation and progress tracking. To meet the 2025 targets, accelerated efforts are needed, emphasizing national responses, equitable access to services, and inclusion of people with dementia. Renewed political commitment and robust health information systems are essential to guide effective planning and action.

## Plenary 1:

Title: Mental Health Needs of Older People in LMIC in a Connected World: a Latin America Perspective

*Cleusa Ferri*

The mental health of older people in Latin America has become increasingly significant due to population ageing and changes in social structures across the region. Older adults in the region, as in many parts of the world, face

significant challenges that can impact their mental health, including poverty, social isolation, limited access to healthcare, and the stigma associated with both mental health issues and ageing.

Access to mental healthcare services in the region is particularly limited for older adults, with a shortage of geriatric specialists and mental health professionals trained to address their specific needs. Changes in family structures, and the lack of support received by informal caregivers, can influence the availability and quality of informal support and caregiving networks, affecting both older people and caregivers' mental health.

While the mental health of older people in Latin America is a subject that is gaining attention, significant gaps persist in terms of healthcare access, social support, and effective policy implementation. We will explore some of the key factors influencing the mental health of older adults in the region, alongside the current efforts and challenges in developing innovative policies and programs aimed at promoting their mental health and well-being.

## **Plenary 2:**

Title: Elevating Geriatric Mental Healthcare within an Evolving Healthcare Landscape

*Brent Forester*

This presentation illuminates the imperative role of geriatric psychiatry amidst an ever-changing healthcare paradigm and the rising prevalence of older adults with mental health challenges and neurocognitive disorders that drive an escalation in health care spending. Utilizing a holistic approach to assessment and treatment, the field of geriatric psychiatry has the transformative potential to streamline care costs and elevate the quality of mental health services for older adults and individuals with dementia.

Exploring diverse healthcare frameworks such as the value-based care model in the US and global payment systems such as those in the Veterans Administration and other socialized medical environments, the lecture advocates for the implementation of integrated geriatric mental health care models. Through an evidence-based analysis of models such as Collaborative Care, Care Ecosystem and Alzheimer's Dementia Care (ADC), the presentation highlights the central role of geriatric mental health care in driving improvements in care quality while reducing overall healthcare expenditures.

Drawing from personal insights and professional experiences, the speaker offers a nuanced perspective on the journey towards comprehensive geriatric mental health integration within healthcare system environments. By championing innovation and advocating for integrated care practices, the presentation aims to inspire attendees to embrace a proactive stance in designing and implementing progressive and interdisciplinary geriatric mental health solutions on a global scale.

## **Plenary 3:**

Title: Improving Mental Health for Persons with Dementia: Converging Studies' Results and the Roads to Implementation

*Jiska Cohen-Mansfield*

Imagine living with dementia. What would your day look like? What would be your living experiences? What is the range of possible experiences? Despite diverse research aims-such as managing agitation, observing dressing habits, reporting on bathing practices, or examining the engaging potential of various stimuli-studies converge on common themes. These themes and study procedures offer guiding principles and practical examples for enhancing the daily lives of individuals with dementia. In this presentation, I will review various such studies that, despite their differing goals, reveal consistent patterns. We will explore the feasibility of implementing these principles and the requirements for successful integration. This analysis suggests the need for a fundamental shift in care premises, indicating that significant improvements in the quality of life for individuals with dementia can become possible. However, it also underscores the infrastructural limitations that may hinder this progress. Furthermore, it will illustrate how progress necessitates paradigm shifts that fundamentally revise the planning, training, and provision of care. This is an invitation for each of you to step forward, develop, and implement those changes, allowing us to learn from each other's experiences and collectively improve dementia care.

Closing Keynote:

## **Closing Keynote:**

Title: Advances in Alzheimer's Disease Therapeutics: A Global Perspective

*Jeffrey Cummings*

Alzheimer's disease (AD) therapeutics are advancing at a rapid rate. After a 17-year hiatus with no new drugs approved worldwide, there have been approvals of disease modifying agents in 2021 and 2023 by the US Food and Drug Administration (FDA) and an additional agent is under review by the FDA. Lecanemab is approved in the US, China, and South Korea and is under review by many other countries. Widespread availability of anti-amyloid monoclonal antibodies is likely over the next few years. Appropriate use of these agents requires substantial healthcare infrastructure to ensure patient benefit and safety. Administration of monoclonal antibodies in countries where healthcare systems are less robust is challenging. Advances in the global treatment of Alzheimer's disease require an improved understanding of the neurobiology of Alzheimer's disease; the development of drugs that are accessible, efficacious, and safe; the creation of international clinical trial infrastructure to recruit more representative populations; education strategies to ensure the correct use of new drugs by clinicians; and implementation approaches that are culturally appropriate to inform patients about the availability of treatment and their proper use. Conduct of clinical trials and development of clinical trial site networks has many advantages including education about AD and clinical trials, learning strategies to rigorously generate robust clinical data, patient education opportunities, revenue generation, recruitment of diverse global populations, and interactions with biotechnology companies with improved collaboration and understanding of industry-based careers. Drug development for Alzheimer's disease addresses a global problem and requires a global solution.

## **Symposia:**

**S1: Crossing Oceans and Connecting People to Promote the Human Rights of Older People**

**Authors:** Carmelle Peisah, MBBS FRANZCP MD, Liat Ayalon, Anne P F Wand, MBBS, PhD, Kiran Rabheru, MD, Andrew Byrnes, Carlos Augusto de Mendonca Lima, MD, PhD

The International Psychogeriatric Association (IPA) has been steadfast in its commitment towards advancing human rights of older persons since the release of its 2011 White Paper which expanded the focus of the Capacity Task Force to prioritize human rights. Through partnerships with the World Psychiatric Association Section Old Age Psychiatry (WPA-SOAP), Capacity Australia, International Longevity Centre Canada (ILC Canada), Canadian Coalition Against Ageism (CCAA), and Rights of Older Persons Australia (ROPA), IPA members have emerged as global leaders in advocating for integration of human rights-based mental health care for older persons. Advocacy efforts have spanned grassroots and global strategies. At the grassroots level, IPA has championed the seamless integration of human rights principles into clinical practice, demonstrating a commitment to action. Globally, IPA has engaged in advocacy for a United Nations (UN) convention on the rights of older persons, notably through active participation in UN Open Ended Working Group on Aging (OEWGA). This symposium showcases a diverse array of papers exemplifying these dual approaches. Papers on grassroots strategies include: (i) “Walking the Talk: 20 Ways to Embed Human Rights in Everyday Clinical Practice” (Carmelle Peisah) provide practical guidance for clinicians; (ii) “The UN Decade’s and our own efforts to address ageism” (Liat Ayalon); (iii) Actualizing human rights of older persons with severe mental illness (Anne Wand). Papers highlighting global strategies include: (i) “Our role and impact with the OEWGA/OHCHR /WHO” (Kiran Rabheru) illustrating how our advocacy has urged healthcare organizations and multilateral bodies such as the UNOEWGA, World Health Organization (WHO), and Office of UN High Commissioner for Human Rights (OHCHR) to prioritize the human rights agenda for older persons; (ii) Is a new treaty critical for policy making? A lawyer’s perspective (Andrew Byrnes); (iii) “The Global Alliance for Rights Based Care and Support (GARBCS)” (Carlos de Mendonça Lima) underscoring the transformative potential of collaborative efforts in fostering a rights-based approach to care. Established to address challenges faced by older individuals worldwide, GARBCS promotes optimal mental health, combats ageism, and fosters collaboration among member organizations, aligning with UN Decade of Healthy Ageing and WHO’s focus areas. Founding Members include AAGP, CHeBA, ILC-Canada, IPA, WDP, WFMH, WFP, WPA, and WONCA, organisations led by many of our IPA members.

### **Objectives:**

1. To understand the challenges faced by older persons worldwide;
2. To engage clinicians in becoming human rights champions;
3. To understand current global efforts at advocacy for the human rights of older persons.

### **Walking the Talk: 20 Ways to Embed Human Rights in Everyday Clinical Practice- Carmelle Peisah**

**Summary:** This presentation will illustrate translational significance and practical implementation of the United Nations Convention on the Rights of Persons with Disabilities (CRPD), the primary [international human rights](#) framework. Articles from the Convention most relevant to the practice of old age psychiatry include: (i) Article 12: Equal recognition before the Law including the right to equal legal capacity, the support in exercising that legal capacity, and the right to be safeguarded against undue influence and abuse; (ii) Article 14: Liberty and security of the person; (iii) Article 16: Freedom from exploitation, violence and abuse; Article 19: Living independently and being included in the community; (iv) Article 22: Respect for privacy; (v) Article 23: Respect for home and the family, and relationships on an equal basis with others; and (vi) Article 25: Equitable access to health. Clinicians will be provided with practical ways to implement each of these relevant Articles in their everyday practice.

## **Is a new treaty on the human rights of older persons critical for effective policy making? A lawyer's perspective- Andrew Byrnes**

### **Objectives:**

1. To inform participants of the latest developments relating to a new treaty on the human rights of older persons
2. To highlight the potential positive contribution of such a new treaty in terms of policymaking
3. To explore through two case studies how the absence of such a treaty has skewed policymaking in relation to older persons and their rights

**Summary:** The development of a new United Nations treaty on the human rights of older persons or in older age has been under discussion at the United Nations and elsewhere for more than a decade. One of the major advantages of a thematic treaty on the rights of older persons is said to be its potential contribution as a clear, comprehensive and coherent framework for policy making at the national level. Advocates argue that other thematic UN treaties – on discrimination against women, children and the rights of persons with disabilities have had this effect, as have regional treaties including those that address the rights of older persons in the Inter-American and African human rights systems. This presentation will explore the potential policy contributions that a new treaty could make by considering recent examples from Australia in which the lack of a comprehensive and coherent international framework on the human rights of older persons led to flawed analysis and policy making. The examples are the Royal Commission into Aged Care Quality and Safety and the drafting of the proposed new “rights-based” Aged Care Act (2023-2024), and the proposal for a national Human Rights Act put forward by the Australian Human Rights Commission (2023) and the Australian Parliamentary Joint Committee on Human Rights (2024). The presentation will argue that, had policymakers had such a framework available to guide their deliberations, a better, more rights-complaint outcome would have resulted.

## **Actualising human rights of older persons with severe mental illness A/Prof Anne Wand<sup>1,2,3</sup>**

1. Specialty of Psychiatry, Faculty of Medicine and Health, University of Sydney
2. School of Psychiatry and Mental Health, Faculty of Medicine and Health, University of New South Wales
3. Older Peoples Mental Health, Sydney Local Health District

People living with severe mental illness experience greater morbidity and premature mortality compared to their peers who do not have mental illness. As articulated by the Convention of the Rights of Persons with Disabilities, persons living with mental illness have an equal right to access high quality health care including towards the end of life, and the right to determine what kind of care they want. These rights sit alongside the rights to live independently and be included in the community, and respect for home and the family. Too often though, these rights are not actualised.

Geriatric psychiatry has an important role in advocacy for older people living with severe mental illness to enjoy equitable rights to autonomy in decision making in areas of accommodation, consent to healthcare, and expressing wishes and preferences towards the end of life. Where capacity is lacking, clinicians may assist to maximise the older person's participation in decision making, including through supported decision making. This presentation will use examples of recent work conducted in public older persons mental health services in Sydney Australia to illustrate advocacy for older people living with severe mental illness to enjoy equal rights to autonomy of decision making and access to quality physical healthcare, including care towards the end of life (advance care planning), and supported accommodation placement (pathways to community living initiative).

**Conclusion:** Often the only health professional engaging with an older person with severe mental illness, mental health clinicians have an opportunity and, arguably, an obligation to advocate for their consumers to actualise their human rights.

### **The UN Decade's and our own efforts to address ageism- Liat Ayalon**

Ageism is defined as stereotypes, prejudices, and discrimination towards people because of their age. It can be directed towards people of any age and be either positive or negative. However, its negative impact, especially on older persons is well documented. Given its substantial impact, it is one of four pillars identified by the UN Decade as essential to tackle to achieve a world for all ages. The UN Global Report on Ageism proposed three evidence-based strategies to reduce ageism. In this presentation, I will illustrate one such strategy, which consists of a 90-minute educational workshop. The workshop was delivered to 318 Israeli adolescents (aged 11 to 15, 73.9% females) to increase their familiarity with the concept, reduce their negative ageist stereotypes, and increase their inclination to become social activists via social media. We found an improved familiarity with the concept 'ageism', while adolescents drew upon concepts such as discrimination and racism to define ageism. Following the intervention, a diverse range of age-related stereotypes emerged, signaling a shift toward more positive perceptions, with notable growth in positive age stereotypes, especially among females. Finally, about two-thirds of created memes (online visual and textual social messages) targeted ageism against older persons, 18.98% promoted an age-inclusive world, and 17.15% addressed ageism towards children and young persons. Implications for reducing ageism in adolescence and for measuring social change are discussed.

### **Our role and impact with the Open-Ended Working Group on Aging (OEWGA), the Office of the High Commissioner for Human Rights (OHCHR), and the World Health Organization (WHO)- Kiran Rabheru**

#### **1. Highlight the Collaborative Efforts of Key International Organizations:**

Illustrate the critical role of the International Psychogeriatric Association (IPA), World Psychiatric Association (WPA), and other organizations in working with UN bodies to advance the human rights of older people.

#### **2. Emphasize the Importance of Increased Engagement and Advocacy:**

Discuss why deeper engagement from mental health professionals and advocacy groups is necessary to influence global policies and initiatives that protect and promote the rights of older persons.

#### **3. Demonstrate the Impact of International Cooperation:**

Provide examples of how collaboration with the UN Open-Ended Working Group on Aging, the Office of the High Commissioner for Human Rights, and the World Health Organization has led to tangible improvements in the lives of older persons, particularly those with mental health conditions.

**Summary:** In an increasingly interconnected world, the role of international organizations such as the International Psychogeriatric Association (IPA) and the World Psychiatric Association (WPA) has become vital in promoting the human rights of older people. This talk will explore how these organizations collaborate with key UN bodies, including the Open-Ended Working Group on Aging, the Office of the High Commissioner for Human Rights, and the World Health Organization, to address the unique challenges faced by older persons, especially

those who live with mental health conditions. By engaging more deeply with these global efforts, we can enhance scientific advocacy, develop comprehensive policies, and implement effective interventions that safeguard the rights and well-being of older persons. This presentation will underscore the necessity of cross-sector engagement and international cooperation in fostering an inclusive world where the human rights of older people are fully actualized and protected.

**The Global Alliance for Rights Based Care and Support (GARBCS)- Carlos Augusto de Mendonça Lima, Gabriel Ivbijaro, Helen Lavretsky, Kiran Rabheru.**

Our world is rapidly aging, with scientific and medical advancements extending lifespans without necessarily enhancing the quality of those additional years. Older persons form a non-homogeneous group with varying levels of intrinsic capacity and functional abilities. Yet, universally, individuals in their later years aspire to preserve dignity, maintain control and independence, foster social inclusion, uphold justice and equality, receive respect for their identity, and pursue good health, security, engagement, and independence throughout their lives. They are entitled to timeless human rights and should receive rights-based care and support just like anyone else in society. Unfortunately, ageism, as defined by the World Health Organization, is pervasive and has a significant negative impact on the lives of older individuals. This discrimination, based on age, affects how people think, feel, and act towards older people. A human rights-based approach to health specifically aims at realizing the right to health and other health-related human rights. These rights are translated into clinical practice as social determinants of health. Their implementation is mainly dependent of fair distribution of money, power and resources at global, national and local levels. Planning health care for older persons should be guided by human rights standards and principles. The final aim of such an approach could be empowering rights-holders to effectively claim their health rights. Elimination of all forms of stigma and discrimination is at the core of a Human-Rights based care for older adults.

A meeting was held during the WPA World Congress in Vienna, Austria, 2023. The attendees unanimously acknowledged that there is a significant amount of work yet to be undertaken in championing the well-being of older individuals. This includes advocating for their dignity, human rights, and health promotion. There is a shared commitment to fostering optimal brain health, resilience, and overall well-being among older adults, addressing their diverse needs encompassing mental, emotional, cognitive, physical, and spiritual dimensions. It was agreed that there is a need to bring together a stakeholder alliance that is coalesced around strengthening the human rights and dignity of older persons. The concept of a Global Alliance for Human-Rights Based Care and Support for Older Persons was born with goals:

1. Strengthen collaboration among member organizations for impactful messages, optimizing mental health, generating knowledge, and driving person-centered, evidence-based change.
2. Enhance visibility and impact across education, research, media, policy, advocating for global awareness, resources, and policies addressing mental health, prioritizing rights, combating ageism, and integrating care, education, and research.
3. Propose transformative changes during the UN Decade of Healthy Aging, aligned with WHO's focus areas, combating ageism, fostering age-friendly communities, ensuring person-centered integrated healthcare, and expanding access to long-term care.
4. Identify strategic opportunities for advancing Sustainable Development Goals (SDGs) across diverse age demographics, addressing how ageism hinders global objectives.
5. Ensure a unified communication strategy for care and support for older persons, emphasizing clear terminology within global initiatives.



## **S2: Neuromodulation in Geriatric Psychiatry: Innovations and Insights in ECT, TMS, tDCS, and Cannabinoid Therapies**

**Authors:** Maria I. Lapid, MD<sup>1</sup>, Georgios Petrides, MD<sup>2</sup>, Adriana P. Hermida, MD<sup>3</sup>, Brent P. Forester, MD, MSc<sup>4</sup>

1. Professor of Psychiatry, Department of Psychiatry & Psychology, Mayo Clinic, Rochester, MN, USA
2. Associate Professor of Psychiatry, Department of Psychiatry, Trinitas Regional Medical Center, RWJBarnabas Health, Elizabeth, NJ, USA
3. Professor of Psychiatry, Department of Psychiatry and Behavioral Science, Emory University School of Medicine, Atlanta, GA, USA
4. Professor of Psychiatry, Department of Psychiatry, Tufts University School of Medicine, Boston, MA, USA

With the rapidly aging population worldwide, the psychiatric care of older adults faces increasingly complex challenges. Geriatric psychiatry must adapt to address the rising prevalence of depression, anxiety, and cognitive impairments with innovative and effective treatments. Neuromodulation in geriatrics encompasses a variety of innovative treatments designed to help manage symptoms of various neurological and psychiatric conditions common in older adults. This symposium will explore the mechanisms, clinical applications, safety, and up-to-date research in Electroconvulsive Therapy (ECT), Transcranial Magnetic Stimulation (TMS), Transcranial Direct Current Stimulation (tDCS), and cannabinoid therapies in older adults.

ECT, conducted under anesthesia, induces seizures via small electric currents through the brain. It is proven to be safe and efficacious in severe depression, catatonia, agitation, aggression in dementia, and other neuropsychiatric conditions especially in the elderly. TMS is a non-invasive procedure that applies electromagnetic pulses to stimulate nerve cells in specific areas of the brain, thought to change neural activity and is FDA-approved for treatment resistant depression. tDCS, employing low direct current via scalp electrodes, is being increasingly explored for depressive disorders and cognitive disorders. Cannabinoids, activating cannabinoid receptors, emerge as a promising option for dementia-related agitation.

In this symposium, Dr. Georgios Petrides will present updated research on the effectiveness of ECT to treat agitation in patients with dementia. Dr. Adriana Hermida will review the TMS literature and share clinical outcomes from Emory University. Dr. Maria Lapid will discuss tDCS effectiveness in depression among older adults. Dr. Brent Forester will examine cannabinoids' role in dementia-related agitation, including ongoing clinical trials with dronabinol.

The learning objective for this session is to understand the principles, applications, benefits, and potential side effects of various neuromodulation techniques and cannabinoids in geriatric care. By the end of the presentation, attendees should be able to explain the mechanisms of action of ECT, TMS, tDCS, and cannabinoids, identify the conditions they can treat, and discuss their relevance and effectiveness in geriatric psychiatry. Furthermore, attendees should be able to compare these techniques and make informed decisions about their use in clinical practice.

## **S3: Geriatric mental health care and training in India – A critical review of progress and future directions**

**Author:** Sivakumar Palanimuthu Thangaraju, MD, Krishna Prasad Muliya, Thirumoorthy A

Population ageing is occurring rapidly in India with the proportion of older adults (aged 60 years and above) estimated to reach 20% by the year 2050 from the existing 10%. The prevalence of mental health problems in

older adults is also expected to increase significantly due to population ageing. Nearly 20% of older adults have at least one mental health condition including the subsyndromal conditions. The data from National Mental Health Survey (NMHS), Longitudinal Ageing Study of India (LASI) and the recent LASI-Diagnostic Assessment of Dementia have estimated the national prevalence of Psychiatric disorders like depression and dementia. 30.2% of older adults have significant depressive symptoms and 8.3% have major depressive disorder. The prevalence of dementia is estimated as 7.4% with an estimate of 8.8 million persons with dementia in 2016 and projected increase to 16.8 million in 2036.

More than 90% of older adults with mental health problems in India remain undiagnosed and untreated. Access to non-pharmacological interventions for older adults with mental health conditions as well as their caregivers are very limited. Mental health problems in older adults are often considered as normal for ageing by older adults, family caregivers as well as health care professionals. Dedicated and specialized clinical services for geriatric mental health care is not available in most of the mental health care institutions.

This symposium will present a critical review of the progress in geriatric mental health care services across India by summarizing the initiatives to promote geriatric mental health care and training. The need for comprehensive psychosocial care and psychiatric rehabilitation along with the acute geriatric mental health care will be addressed by experts involved in geriatric mental health care and training.

The symposium will have the following presentations.

1. Geriatric mental health care in India- scope, challenges and innovative initiatives: Prof. Sivakumar Palanimuthu Thangaraju, Professor of Psychiatry & Head, Geriatric Psychiatry Unit, Department of Psychiatry, National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru, India
2. A review of the initiatives for the training to promote the workforce for geriatric mental health care in India: Prof. Krishna Prasad Muliya, Professor of Psychiatry & Head, Psychiatric Rehabilitation Services, Department of Psychiatry, National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru, India
3. Psychosocial interventions for geriatric mental health care- Scope and challenges: Prof. Thirumoorthy A, Professor & Former Head, Department of Psychiatric Social Work, National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru, India

#### **S4: The LatAm-FINGERS Initiative: The First Non-Pharmacological Randomized Controlled Trial to Prevent Cognitive Decline Across Latin America**

**Authors:** Gustavo E. Sevliver, Lucía Crivelli, Rosa Maria Salinas, Ana Charamelo, Carolina Delgado

**Overview:** Gustavo E. Sevliver

Approximately 40% of global dementia cases in high-income countries are attributed to potentially modifiable risk factors, whereas in Latin America, this figure rises to 56%. This difference underscores the importance of initiating preventive trials in the region. LatAm- FINGERS is the first non-pharmacological multicenter randomized clinical trial in Latin America, involving 12 countries: Argentina, Brazil, Bolivia, Chile, Colombia, Costa Rica, Ecuador, Mexico, Puerto Rico, the Dominican Republic, and Uruguay. The trial aims to prevent cognitive impairment through a multidomain lifestyle intervention. It evaluates the feasibility and efficacy of these interventions in

enhancing cognitive function among 1,200 participants over two years. The lifestyle intervention, modeled after the Geriatric Intervention Study to Prevent Cognitive Impairment and Disability (FINGER), encompasses nutrition, physical exercise, cardiovascular risk factor management, cognitive training, and socialization. Harmonization processes have ensured consistency with FINGER and the U.S. Study to Protect Brain Health through Lifestyle Intervention to Reduce Risk (U.S. POINTER) across Latin America. Since recruitment commenced in December 2021, 1,867 participants have been screened, with 1,186 enrolled. The cohort is predominantly female (73.8%), with an average age of 67.41 years, representing diverse ethnic backgrounds. LatAm-FINGERS has established the largest dataset on dementia risk in the region, evolving into a comprehensive database for cognitive, imaging, biomarker, and genetic research. It aims to promote collaborative efforts in dementia prevention across Latin America.

In this session, we will provide an overview of the trial's objectives and outcomes, the basis for the multidomain interventions, and describe the recruitment and adherence strategies implemented. We will conclude with results regarding the association of cardiovascular risk factors with social determinants of health.

### **ABSTRACT 1: Lucía Crivelli**

#### **LatAm-FINGERS: Establishing Eligibility and Outcomes for Effective Research Across Latin America**

**Objectives:** LatAm-FINGERS is the first non-pharmacological, multicenter randomized clinical trial in Latin America, involving 12 countries and aiming to prevent cognitive impairment. The trial's primary objective is to assess the feasibility and efficacy of a multidomain lifestyle intervention in improving cognitive function among 1,200 participants over two years. Additionally, this study aims to evaluate the validity properties of cognitive outcomes within the LatAm-FINGERS cohort.

**Methods:** To ensure consistency, the study employed harmonization processes with the original FINGER trial and the U.S. POINTER trial as part of the Worldwide FINGERS initiative. Eligibility criteria were standardized using normative z-scores. The Latin American Neuropsychological Battery (LatAm-NTB) was developed, including tests such as the Free and Cued Selective Reminding Test, Logical Memory, Digit Span, Stroop Test, Concept Shifting Test, Trail Making Test, Symbol Digit Modalities Test, and semantic and phonological fluency. A multivariate regression model was used to evaluate the validity of the LatAm-NTB.

**Results:** Since recruitment began in December 2021, 1,186 participants have been enrolled. The mean age is 67.41 years ( $SD = 4.65$ ), with an average educational level of 12.9 years ( $SD = 3.7$ ) and an average Mini-Mental State Examination (MMSE) score of 27.2 ( $SD = 2.17$ ). Women comprise 73.8% of the cohort. A multivariate regression model, which included sociodemographic variables, non-modifiable risk factors, and cardiovascular risk, was constructed to explain cognitive performance. This model demonstrated better fit parameters (BIC: 734.649, AIC: 793.661) compared to the reduced model (BIC: 1041.591, AIC: 1051.426). Higher education ( $\beta = 0.04$ ,  $SE = 0.003$ ,  $p < .001$ ), younger age ( $\beta = -0.01$ ,  $SE = 0.002$ ,  $p < .001$ ), and a lower Framingham Risk Score ( $\beta = -0.01$ ,  $SE = 0.003$ ,  $p < .001$ ) were associated with better cognitive performance. Being male was not significantly associated with cognitive outcomes ( $\beta = -0.01$ ,  $SE = 0.02$ ,  $p = 0.57$ ).

**Conclusion:** Eligibility criteria were adequate to select the targeted population. The results suggest that the LatAm-NTB has promising validity indicators for assessing cognition in a follow-up clinical trial in Latin America.

### **ABSTRACT 2: Ana Charamelo**

#### **Design and Harmonization of Interventions, barriers, and challenges**

**Background:** The objective of this analysis is to show how an intervention in Latin American lifestyles to prevent cognitive deterioration was initiated, its design, and what harmonization strategies were used, taking into account the multiculturalism of this population, constituted by 12 countries throughout the continent. It is the first randomized, multicenter, non-pharmacological clinical trial conducted on this continent.

**Methods:** The design of the Interventions includes (1) physical activity, (2) nutrition, (3) cognitive stimulation, (4) control of cardiovascular factors, and (5) socialization. The feasibility of the intervention in Latin America and its effectiveness, especially in the cognitive variables, were considered. An external harmonization of them was carried out with those used in the Fingers study (Finland), and Pointers (USA). In turn, an internal harmonization between the 12 participating countries was made to ensure viability. The work was carried out in groups in each of the domains, composed of representatives from each of the 12 countries and members of the Scientific Committee, and was approved by the Steering Committee. The barriers and challenges are evaluated, affording different cultures and diverse eating habits. A barrier was the intensity of the physical intervention (that became a real challenge) and the different eating habits. In the last case, the LatAm-Mind diet was created after a multicultural work without moving away from the Mind and Mediterranean. In the accessibility to the technological devices to use the Brain H Q, which was the cognitive stimulation platform used, there were countries where access to a computer device or the Internet was normalized. In some countries, the exercises had to be applied in paper and pencil format. A high rate of metabolic syndrome was found (39 %).

**Conclusion:** The study is feasible, comparable and agreed upon in the 12 countries, considering their ethnic diversity (56% are mestizo), geographical differences, eating habits, access to the internet, and digital technology. LatAm-FINGERS met the challenge to combine the diversity of the region into a multi-domain risk reduction intervention feasible across Latin America while retaining the original design of FINGERS.

### **ABSTRACT 3**

**Rosa Maria Salinas**

#### **Recruitment Strategies in the LatAm FINGERS Trial: a multicultural effort to prevent dementia across Latin America.**

**Background:** LatAm-Fingers is the first non-pharmacological multicenter randomized clinical trial to prevent cognitive impairment in Latin America (LA). The trial congregates the efforts of 12 Countries, including Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Mexico, Peru, Puerto Rico, and Uruguay. The main aim is to investigate the feasibility of a 24-month multi-domain lifestyle intervention and its efficacy on the cognition of 1200 participants.

**Methods:** Recruitment strategies differed across countries and regions because they were adapted to the idiosyncrasies of the local populations. Recruitment from medical center databases was found insufficient to provide a diverse cohort. Alternative strategies included social media posts with infographics and videos. A novel and successful strategy was in-person talks for older adults in local city halls and local nongovernmental organizations. The use of positive colloquial language was found to be much more effective in reaching underserved populations than scientific language (e.g., focusing on brain health vs. clinical trials). A significant recruitment source in Peru, Bolivia, and Ecuador low-income regions was the promotion within non-Catholic religious organizations. Appealing to the religious leaders' endorsement was crucial for generating trust and interest in different communities. In Mexico, one successful recruitment strategy involved performing physical exercises in local parks in low-income neighborhoods to demonstrate the intervention in-vivo, which attracted

interested people from the area. Overall, in-person contact with participants and time dedicated to explaining the trial's rationale in lay language was the most important strategy.

**Results:** We enrolled 1,186 participants in the study. The mean (SD) age is 67.41 (4.9) years, 73.8 % are female, 43.7% of participants have more than 16 years of schooling, and the MMSE score is 27.2 (2.2). To date, 51% of the population self-reports as mestizo (mixed race), and 31% as Caucasian. Other ethnicities represented include Native American (1.5%), Mulato (4%), Black (2%), and other (6%).

**Conclusion:** The LatAm-FINGERS trial recruited participants from a wide range of diverse populations. Our results support the decisive role of tailored and idiosyncratic strategies in reaching different communities and ensuring the representativeness of the study sample.

## ABSTRACT 4

**Carolina Delgado**

### **Cardiovascular health is associated with social determinants of health in the LatAm-FINGERS cohort**

**Background:** Cardiovascular risk factors (CVRF) are among the main modifiable risk factors for dementia in Latin America (LA). Therefore, improving cardiovascular health (CVH) is one of the main objectives of the LatAm-FINGERS trial, the largest non-pharmacological (lifestyle improvement) randomized trial in LA. But, to fully comprehend CVH it is necessary to explore its relation with the social determinants of health (SDH), that are closely associated with lifestyle.

**Methods:** LatAm-FINGERS is an initiative to develop a joint regional intervention protocol to prevent cognitive deterioration in 12 LA countries. Participants (between 60-77 years old) should have high dementia risk (CAIDE >6), were evaluated clinically and cognitively at baseline and every 6 months for 2 years. At baseline, we measured the CVRF according to the Framingham risk score and the CVH with the "Life's Essential 8 cardiovascular health index" (CVHI), a composed score that includes lifestyle's (diet, physical activity, nicotine exposure, sleep health) and metabolic variables (body mass index (BMI), blood lipids, blood glucose, and blood pressure). Each score ranges from 0 to 100, with higher values meaning a healthier profile. SDH was measured by years of education, race, and occupation. Occupation categorical data was transformed into an ordinal scale using the Hollingshead score. For an exploratory analysis we did partial correlations (controlled by age and sex) between CVHI and SDH measures.

**Results:** Preliminary data from 1,024 participants were analyzed, age =  $67 \pm 5$  years, education =  $13 \pm 4$  years, 72% women, 87% had high CVRF. The CVHI ( $60 \pm 16$ ) was obtained with 7 of the 8 variables, excluding sleep health. Diet ( $39 \pm 13$ ) and physical activity ( $37 \pm 39$ ) were the unhealthiest scores, while blood glucose ( $75 \pm 26$ ) was the healthiest one. There were significant correlations between CVHI with years of education ( $r = 0.179$ ,  $p < 0.001$ ) and occupation score ( $r = 0.169$ ,  $p < 0.001$ ). Moreover, CVH individual components correlated with SDH, except for blood lipids.

**Conclusion:** In the LatAm-FINGERS cohort, better socioeconomic position is associated with a healthier cardiovascular index at baseline, being important to explore the role of SDH in CVH modification across the trial.

## **S5: Social Well-Being Through the Continuum of Dementia: Addressing BPSD and Communication Handicap Through Innovative Interventions Supporting Person-Centered Care**

**Authors:** Ana Ines Ansaldo, PhD, Marcelo Schapira, Yves Joannette, PhD FCAHS

The 2017-2025 WHO Global Action Plan on the response to dementia emphasizes the necessity of developing approaches to sustain physical, mental, and social wellbeing in people with dementia, their careers, and families. Since the publication of this Global Action Plan, there has been some progress, particularly regarding physical and mental well-being, while less progress has been made on social well-being, a well-being dimension whose importance was particularly highlighted during the COVID-19 pandemic. In human beings' social connection is established through communication. Hence, communication disabilities in the context of dementia negatively impact social well-being. This Symposium is constructed around three complementary approaches to enhancing social well-being in persons living with dementia.

The first presentation by Prof Yves Joannette approaches the concept of social wellbeing as per the WHO Global Action Plan for dementia, and the WHO Decade of Healthy Ageing plan. It will discuss links between social inclusion and communication, reminding the audience that communication can be affected even when cognitive impairments are hardly visible, insidiously crumbling social life since the very first stages of the illness, while pointing the tendency to isolating PLWD from the rest of the society (e.g., long-term care), particularly in pandemic periods.

The second intervention by Dr Marcelo Schapira will share his team's Multidisciplinary and Sociosanitary Approach to Dementia Care and Social Well-Being, proposing a gerontological perspective to interventions at the person's home, including pharmacological and non- pharmacological approaches to BPSD, a co-managing approach addressing complex situations, while learning from the person's experience.

The third intervention by Pr. Ana Inés Ansaldo will address challenges to social wellbeing in the context of the vicious circle of uncommunication in dementia, and links with BPSD. It will develop the concept of emotionally grounded communication and its importance to preserve well-being through the continuum of dementia care. A presentation of pilot data on an intersectoral research project on the psychophysiological, verbal, nonverbal and markers of emotional communication will follow, followed by an overview of the COMPAs study as means to support person-centered care.

**Intervention 1 – Social wellbeing as a central piece for the WHO Global Action Plan as well as for sustaining well-being in healthy aging** - Yves Joannette, Professor, Faculty of Medicine, University of Montreal, Lab Director, CRIUGM, Montréal, Québec, Canada Member of the WHO Dementia Plan Advisory Committee and Former Chair, World Dementia Council

**Intervention 2– Multi-disciplinary and Socio-health Approach to Dementia Care and Social Well-being: Experiences that Improve Management** - Marcelo Schapira, Geriatrician, Hospital Italiano, Buenos Aires, Director of the Specialisation Program in Geriatrics, Universidad de Buenos Aires, Argentina

**Intervention 3 – Human Expertise and Artificial Intelligence: Empirical and Clinical Evidence on the Role of Emotional Communication in Social Well-Being of Persons Living with Dementia** - Ana Inés Ansaldo, Professor, Faculty of Medicine, University of Montreal, Director of the Neuroplasticity Communication and Ageing Lab, CRIUGM, Montréal, Québec, Canada.

## **S6: Junior Research Award Winner: Cognitive impairment and Dementia in Latin American Individuals with Parkinsonism and Parkinson's Disease: A 10/66 Dementia Research Group Study - Jorge Jesus L. Llibre-Guerra, MD**

**Authors:** Llibre-Guerra JJ, Khan N<sup>2</sup>, Arruabarrena MM<sup>3\*</sup>, Kim DJ<sup>4</sup>, Jiang M<sup>5</sup>, Llibre-Rodriguez JJ<sup>6</sup>, Rodriguez-Salgado AM<sup>7</sup>, Acosta I<sup>8,9</sup>, Sosa AL<sup>8,9</sup>, Acosta D<sup>10</sup>, Jimenez-Velasquez IZ<sup>11</sup>, Guerra M<sup>12</sup>, Salas A<sup>13</sup>, López-Contreras R<sup>14</sup>, Dhara Santana<sup>15</sup>, Joel Solorzano<sup>16</sup>, Jeyachandran C<sup>17</sup>, Hesse H<sup>18</sup>, Tanner C<sup>19</sup>, Prina M<sup>2</sup>

### **Affiliations:**

1. Department of Neurology, Washington University in Saint Louis. Saint Louis, MO 63108
2. Population Health Sciences Institute, Faculty of Medical Sciences, Newcastle University, Newcastle upon Tyne, United Kingdom
3. Department of Cognitive Neurology, Fleni, Buenos Aires, Argentina.
4. Health Service and Population Research Department, Institute of Health Service and Population Research Department, Institute of Psychiatry, Psychology, and Neuroscience, King's College London, London, United Kingdom
5. Institute of Public Health, Faculty of Biomedical Sciences, Università della Svizzera italiana, Lugano, Switzerland.
6. Dementia Research Unit, Medical University of Havana, Havana, Cuba
7. Global Brain Health Institute, University of San Francisco California, San Francisco, CA 94117
8. Laboratory of the Dementias, National Institute of Neurology and Neurosurgery, Mexico City, Mexico
9. National Autonomous University of Mexico, Mexico City, Mexico
10. Universidad Nacional Pedro Henríquez Ureña (UNPHU), Internal Medicine Department, Geriatric Section, Santo Domingo, Dominican Republic
11. Internal Medicine Department, Geriatrics Program, School of Medicine, Medical Sciences Campus, University of Puerto Rico, San Juan, Puerto Rico
12. Instituto de la Memoria Depresion y Enfermedades de Riesgo IMEDER, Lima, Perú
13. Medicine Department, Caracas University Hospital, Faculty of Medicine, Universidad Central de Venezuela, Caracas, Venezuela
14. Memory Clinic, Neurology Service, Salvadoran Social Security Institute, San Salvador, El Salvador
15. Department of Neurology, Hospital Félix María Goico, Santo Domingo, Dominican Republic.
16. Department of Medicine, Hospital Antonio Luaces Iralola, Ciego de Avila, Cuba.
17. Faculty of Medicine and Health, University of New South Wales, Sydney 1466, Australia.
18. Observatorio Covid-19, Universidad Tecnológica Centroamericana, Honduras
19. Department of Neurology, Weill Institute for Neurosciences, University of California- San Francisco, San Francisco, CA 94117

**Background:** Limited knowledge exists about the association between Parkinsonism or Parkinson's disease (PD) and cognitive impairment and dementia in Latin America.

**Objective:** The study aimed to determine the cross-sectional and prospective associations between Parkinsonism and PD with cognitive impairment and dementia in a large multi-country cohort in Latin America.

**Methods:** The 10/66 is a prospective, observational cohort study. This population-based cohort study was based in six Latin American countries: Cuba, Dominican Republic, Puerto Rico, Venezuela, Mexico, and Peru. The study includes 12,865 participants from six countries, including residents aged 65 years and living in urban and rural catchment areas. Exposures included diagnosed Parkinsonism and PD defined according to the United Kingdom Parkinson's Disease Society Brain Bank diagnostic criteria. Cognitive impairment was the main outcome measure for cross-sectional analysis and dementia was used to measure the prospective association with the exposures. Logistic regression models were used to explore the association between Parkinsonism/PD with cognitive impairment at baseline. Competing risk models were used to assess the prospective association between Parkinsonism/PD with incident dementia accounting for competing risk of mortality. Individual country analyses were combined via fixed-effect meta-analysis.

**Results:** At baseline, the prevalence of cognitive impairment in people with Parkinsonism and PD was 30% and 26.2%, respectively. Parkinsonism (OR 2.2 (95%CI 1.9–2.6)) and PD (1.9 (95%CI 1.4–2.4)) were individually

associated with baseline and incident cognitive impairment after accounting for age, sex, and education, after pooling. In competing risk models, the pooled sub-hazard ratios for dementia in the fixed effect metanalysis were 1.5 (95%CI 1.2 – 1.9) for parkinsonism and 1.5 (95%CI 1.0 – 2.2) for PD.

**Conclusions:** Parkinsonism and PD were cross-sectionally associated with cognitive impairment and prospectively associated with incident dementia in Latin America. Routine screening for cognitive impairment and dementia with validated tools in PD patients may aid earlier detection of those at greater risk of adverse outcomes.

### **S7: Cross cultural perspectives on Holistic approach to promote healthy ageing- Insights from India and Brazil**

**Authors:** Sivakumar Palanimuthu Thangaraju, MD, Shivarama Varambally, Bernardo Viana

Demographic transition and changes in the population structure has contributed to global challenges related to population ageing. World Health Organization (WHO) has proposed global strategy and action plan on ageing and health to address the challenges related to population ageing. Despite the decline in intrinsic capacity, provision of appropriate environmental support can help in improving the functional ability and promoting Healthy ageing. India and Brazil are large countries with rapid population ageing with significant needs and challenges to promote Healthy Ageing. Both countries have significant differences in the cultural and socio-economic factors related to population ageing and rich history of traditional / alternative medicine interventions (such as Yoga and Ayurveda in India). Older adults have multiple comorbidities of physical and mental health issues with many of them seeking treatment from alternative systems of medicine. Holistic approach with integrated care will be helpful in older adults to promote healthy ageing. This symposium will summarize the holistic approach to healthy ageing in the global context with specific focus on the perspectives from India and Brazil. Mental health experts from India and Brazil with expertise in Geriatric Psychiatry and Integrative Medicine will be the presenters for the symposium.

The symposium will have the following presentations

1. Holistic approach to Healthy ageing: Global Perspectives: Prof. Sivakumar Palanimuthu Thangaraju, Professor of Psychiatry & Head, Geriatric Psychiatry Unit, Department of Psychiatry, National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru, India
2. Lifestyle interventions through Integrative medicine to promote Healthy Ageing: Indian Perspective: Prof. Shivarama Varambally, Professor, Department of Psychiatry & Former Head, Department of Integrative Medicine, National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru, India
3. Scope for Traditional medicine and Holistic approach to Promoting Healthy Ageing in Brazil: Dr Bernardo Viana, Assistant Professor of Psychiatry, School of Medicine, Federal University of Minas Gerais, Belo Horizonte, Brazil

### **S8: Understanding Dementia, Neurodegenerative Disorders, and neuropsychiatric symptoms in Aging populations from Latin America.**

**Authors:** Daisy Acosta, MD<sup>1</sup>, Juan de Jesús Llibre Rodríguez, MD, PhD<sup>2</sup>, Ana Luisa Sosa MD, PhD<sup>3,4</sup>, Isaac Acosta<sup>3</sup>, Ivonne Z. Jimenez-Velasquez<sup>5</sup>, Jorge J Llibre Guerra, MD<sup>6</sup>

1. Universidad Nacional Pedro Henríquez Ureña (UNPHU), Dominican Republic
2. Dementia Research Unit/Medical University of Havana, Havana, Cuba
3. Laboratory of Dementias, National Institute of Neurology and Neurosurgery, Mexico City, Mexico
4. National Autonomous University of Mexico, Mexico City, Mexico
5. Internal Medicine Department, Geriatrics Program, School of Medicine, Medical Sciences Campus, University of Puerto Rico, San Juan, Puerto Rico 00931, USA.
6. Department of Neurology, Washington University School of Medicine in St. Louis, MO 63110, USA.



**Objectives:** Dementia presents a growing public health challenge globally and its impact is significantly pronounced in low and middle-income countries (LMICs), including those in Latin America. This symposium aims to present recent findings on the prevalence, impact, and underlying factors of cognitive impairment and neuropsychiatric symptoms in aging populations across Latin America, with a focus on culturally and regionally specific research findings.

**Methods:** The symposium will consolidate data from the 10/66 Dementia Research Group, which has conducted extensive research across various Latin American countries. We integrate results from multiple investigations with over 12,000 elderly participants from six Latin American countries, utilizing cross-sectional and longitudinal methodologies. These studies employ the 10/66 Dementia Research Group protocols, among other internationally recognized diagnostic tools, to assess dementia, neurodegeneration and neuropsychiatric symptoms.

**Results:** The symposium will delve into critical yet not well-understood topics. The audience will be first introduced to emerging trends of dementia prevalence and incidence in Latin America and the interaction with different risk factors particular to the region. Second, we will discuss findings from a comprehensive analysis focusing on the prevalence and impact of cognitive impairment and incident dementia in parkinsonism and Parkinson's Disease. The third presentation will focus on the prevalence of neuropsychiatric symptoms across cognitively unimpaired, dementia, and Parkinson's' disease, emphasizing the need to implement systematic screening methods for early detection from a clinical and public health perspective. The final talk will present data exploring the influence of genetic ancestry alongside social and environmental factors as predictors of dementia risk in Latin America.

**Conclusion:** The findings presented underscore the complex interplay of genetic, social, and environmental factors in the etiology and progression of neurodegenerative and neuropsychiatric conditions in Latin America. The symposium will highlight the critical need for comprehensive public health strategies and enhanced research focus to better understand and address these issues within aging populations.

**Presentation title:**

**1 - Trends in the prevalence of dementia in Latin America and the Caribbean: findings from the 10/66 studies. (Juan J Llibre Rodríguez)**

**Authors:** Juan J. Llibre-Rodríguez<sup>1</sup>, Daysi Acosta<sup>2</sup>, Mariella Guerra<sup>3</sup>, Ana Luisa Sosa-Ortiz<sup>4</sup>, Isaac Acosta<sup>4</sup>, Ivonne Z Jiménez Velázquez<sup>5</sup>, Aquiles Salas<sup>6</sup>, Jorge J. Llibre-Guerra<sup>7</sup>, Martin Prince<sup>8</sup>

1. Dementia Research Unit/Medical University of Havana, Havana, Havana, Cuba
2. Universidad Nacional Pedro Henríquez Ureña (UNPHU), Santo Domingo, Dominican Republic
3. Universidad Peruana Cayetano Heredia, Lima, Perú
4. Dementia Laboratory, National Institute of Neurology and Neurosurgery, Mexico City, Mexico
5. University of Puerto Rico, School of Medicine, San Juan, Puerto Rico
6. Caracas University Hospital, Caracas, Venezuela (Bolivarian Republic of)
7. Department of Neurology, Washington University School of Medicine, St Louis, MO, USA
8. Institute of Psychiatry, and Neuroscience King's College, London, United Kingdom

**Objectives:** Population ageing will lead to a dramatic increase in dementia prevalence globally. Recent evidence suggests a decline in dementia incidence in HIC due to increasing education levels and improvements in cardiovascular health. Although, most of the increase will occur in low and middle-income countries (LMICs), there are no recent estimates of dementia prevalence and incidence in LMICs. The present study aimed to examine new

trends on dementia prevalence and incidence in Latin-America and associations of socioeconomic determinants and cardiovascular risk factors.

**Methods:** Sample size included older adults from Latin America (Cuba, Dominican Republic [DR], Puerto Rico [PR], and Mexico) drawn from the 10/66 Dementia Research Group study. We compare wave 1 (2003–2006) with wave 3 (2016–2019) of 10/66 studies. The main outcome was dementia prevalence relative to previous waves. Dementia diagnosis was determined according to the 10/66 dementia criteria. All the 10/66 waves used the same standardized assessments and protocols.

**Results:** Comparing the first wave (2003 - 2006) with the third wave (2016 - 2019) in four Latin American countries – Cuba, the Dominican Republic, Mexico, and Peru – reveals significant trends in dementia prevalence. Preliminary data suggest an increase in the Dominican Republic, Mexico, and Peru, while Cuba slightly declined, from 12.4 percent in Wave 1 to 10.1 percent in Wave 3. In contrast, the Dominican Republic’s age-adjusted prevalence rose from 11.5 percent to 13.6 percent, Peru from 9.2 percent to 16.8 percent, and Mexico from 8.3 percent to 17.1 percent. Despite, improvements in levels of education, increases in dementia prevalence were associated with higher rates of cardiovascular disease and cardiovascular risk factors, including diabetes, hypertension, obesity and heart disease in the later-born cohorts. Self-reported stroke is also rising.

**Conclusion:** The increasing prevalence of dementia in LAC underscores the urgent need for targeted health interventions. Prevention strategies should emerge as a key focus in the battle against dementia in Latin America. Addressing modifiable risk factors can significantly impact the incidence and prevalence of dementia.

## **2 - Cognitive Impairment and Dementia in Latin American Individuals with Parkinsonism and Parkinson’s Disease: A 10/66 Dementia Research Group Study (Ana Luisa Sosa)**

**Authors:** Sosa Ana Luisa<sup>1,2</sup>, Khan N<sup>3</sup>, Arruabarrena MM<sup>4</sup>, Kim DJ<sup>5</sup>, Jiang M<sup>6</sup>, Llibre-Rodriguez JJ<sup>7</sup>, Rodriguez-Salgado AM<sup>8</sup>, Acosta I<sup>1,2</sup>, Acosta D<sup>9</sup>, Jimenez-Velasquez IZ<sup>10</sup>, Guerra M<sup>11</sup>, Salas A<sup>12</sup>, López-Contreras R<sup>13</sup>, Dhara Santana<sup>14</sup>, Hesse H<sup>15</sup>, Tanner C<sup>16</sup>, Prina M<sup>3</sup>, Llibre-Guerra JJ<sup>17</sup>, on behalf the 10/66 Dementia Research Group

1. Laboratory of the Dementias, National Institute of Neurology and Neurosurgery, Mexico City, Mexico
2. National Autonomous University of Mexico, Mexico City, Mexico
3. Population Health Sciences Institute, Faculty of Medical Sciences, Newcastle University, Newcastle upon Tyne, United Kingdom
4. Department of Cognitive Neurology, Fleni, Buenos Aires, Argentina.
5. Health Service and Population Research Department, Institute of Health Service and Population Research Department, Institute of Psychiatry, Psychology, and Neuroscience, King’s College London, London, United Kingdom
6. Institute of Public Health, Faculty of Biomedical Sciences, Università della Svizzera Italiana, Lugano, Switzerland.
7. Dementia Research Unit, Medical University of Havana, Havana, Cuba
8. Global Brain Health Institute, University of San Francisco California, San Francisco, CA 94117
9. Universidad Nacional Pedro Henríquez Ureña (UNPHU), Internal Medicine Department, Geriatric Section, Santo Domingo, Dominican Republic
10. Internal Medicine Department, Geriatrics Program, School of Medicine, Medical Sciences Campus, University of Puerto Rico, San Juan, Puerto Rico
11. Instituto de la Memoria Depresion y Enfermedades de Riesgo IMEDER, Lima, Perú
12. Medicine Department, Caracas University Hospital, Faculty of Medicine, Universidad Central de Venezuela, Caracas, Venezuela
13. Memory Clinic, Neurology Service, Salvadoran Social Security Institute, San Salvador, El Salvador
14. Department of Neurology, Hospital Félix María Goico, Santo Domingo, Dominican Republic
15. Observatorio Covid-19, Universidad Tecnológica Centroamericana, Tegucigalpa, Honduras
16. Department of Neurology, Weill Institute for Neurosciences, University of California-San Francisco, San Francisco, CA 94117
17. Department of Neurology, Washington University School of Medicine in St. Louis, St. Louis, Missouri, USA

**Objectives:** Studies in PD have traditionally focused on motor features, however, interest in non-motor manifestations has increased resulting in improved knowledge regarding the prognosis of the disease. Although several studies have explored the incidence of dementia in PD cohorts, these studies have been conducted mainly in reference centers in high-income countries (HIC). In this study we aimed to analyze the prevalence of cognitive impairment in people with parkinsonism and PD and its association with incident dementia in a population-based study, of elderly from six Latin American countries.

**Methods:** This report consists of the analysis of data from a follow-up of 12,865 elderly people aged 65 years or older, carried out by 10/66 Dementia Research Group. Residents of urban and rural areas, from six low and middle-income countries (Cuba, Dominican Republic, Puerto Rico, Venezuela, Mexico and Peru). Exposures include parkinsonism and PD defined according to the UK Parkinson's Disease Society Brain Bank diagnostic criteria. Cognitive impairment was the main exposure and dementia was measured through the dementia diagnosis algorithm from 10/66 DRG.

**Results:** At baseline, the overall prevalence of cognitive impairment was 14% (n = 1,581), in people with parkinsonism and PD, it was of 30.0% and 26.2%, respectively. Parkinsonism and PD were individually associated with prevalent and incident dementia after controlling for age, sex, and education. The pooled odds ratios from a fixed-effects meta-analysis were 2.2 (95% CI: 1.9 – 2.6) for parkinsonism and 1.9 (95% CI: 1.4 – 2.4) for PD. Regarding incident dementia, the pooled sub-Hazard ratio estimated using a competing risk model was 1.5 (95% CI: 1.2 – 1.9) for parkinsonism and 1.5 (95% CI: 1.0 – 2.2) for PD.

**Conclusion:** Parkinsonism and PD were associated cross-sectionally with the presence of cognitive impairment, and prospectively with incident dementia in elderly people in the community population of Latin America studied. Systematic screening for cognitive impairment and dementia with valid tools in PD patients may help with earlier detection of those at highest risk for adverse outcomes. Identifying modifiable risk factors could potentially lead to efficient interventions even in advanced stages of PD.

**Keywords:** cognitive impairment, incident dementia, parkinsonism, parkinsonism plus dementia, Latin Americans

### **3 - Prevalence and impact of neuropsychiatric symptoms in normal aging and neurodegenerative syndromes: A population-based study from 6 Latin America centers. (Isaac Acosta)**

**Authors:** Isaac Acosta<sup>1,2</sup>, Ana M. Rodriguez Salgado<sup>3</sup>, Dani J. Kim<sup>4</sup>, Jennifer Zitser<sup>5</sup>, Ana Luisa Sosa<sup>1,2</sup>, Daisy Acosta<sup>6</sup>, Ivonne Z. Jimenez-Velasquez<sup>7</sup>, Mariella Guerra<sup>8</sup>, Aquiles Salas<sup>9</sup>, Adolfo Valvuerdi<sup>10</sup>, Juan C. Llibre-Guerra<sup>11</sup>, Christine Jeyachandran<sup>12</sup>, Ricardo López Contreras<sup>13</sup>, Heike Hesse<sup>14</sup>, Caroline Tanner<sup>15</sup>, Juan J. Llibre Rodriguez<sup>16</sup>, Matthew Prina<sup>4,17</sup>, Jorge J. Llibre-Guerra<sup>18</sup>, for the 1066 Dementia Research Group.

1. Laboratory of Dementias, National Institute of Neurology and Neurosurgery, Mexico City, Mexico
2. National Autonomous University of Mexico, Mexico City, Mexico
3. Global Brain Health Institute, University of San Francisco California, San Francisco, California, USA
4. Health Service and Population Research Department, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, UK
5. Department of Neurology, Movement Disorders Unit, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel
6. Universidad Nacional Pedro Henriquez Ureña (UNPHU), Internal Medicine Department, Geriatric Section, Santo Domingo, Dominican Republic
7. Internal Medicine Department, Geriatrics Program, School of Medicine, Medical Sciences Campus, University of Puerto Rico, San Juan, Puerto Rico
8. Instituto de la Memoria Depresion y Enfermedades de Riesgo IMEDER, Lima, Perú

9. Medicine Department, Caracas University Hospital, Faculty of Medicine, Universidad Central de Venezuela, Caracas, Venezuela
10. Medical University of Matanzas, Matanzas, Cuba
11. Department of Neurology, Hospital de Salamanca, Salamanca, Spain
12. Faculty of Medicine and Health, University of New South Wales, Sydney, Australia
13. Memory Clinic, Neurology Service, Salvadoran Social Security Institute, San Salvador, El Salvador
14. Universidad Tecnológica Centroamericana, Tegucigalpa, Honduras
15. Department of Neurology, Weill Institute for Neurosciences, University of California-San Francisco, San Francisco, California, USA
16. Facultad de Medicina Finlay-Albarran, Medical University of Havana, Havana, Cuba
17. Population Health Sciences Institute, Faculty of Medical Sciences, Newcastle University, Newcastle, UK
18. Department of Neurology, Washington University School of Medicine in St. Louis, St. Louis, Missouri, USA

**Objectives:** Because of the continued transition to older populations, various strategies have been developed to estimate the social impact and burden of health care. Regarding mental health, a strategy in the elderly is the measurement of neuropsychiatric symptoms (NPS), these include a wide range of behavioral and psychological manifestations. These are more frequent in the presence of some diseases, such as neurodegenerative syndromes, among which dementias and Parkinson's disease (PD) stand out. The present study seeks to analyze the frequency of NPS, its relationship with the presence or absence of neurodegenerative syndromes and some characteristics of the elderly and caregivers.

**Methods:** This is an analysis of data from 12,865 elderly people evaluated within the protocols of the Dementia Research Group 10/66 in 6 Latin American countries (Cuba, Dominican Republic, Puerto Rico, Mexico, Venezuela and Peru). The presence or absence of parkinsonism, dementia and parkinsonism plus dementia (PDD) was identified through previously validated and published methods. The NPS were assessed using the 12-symptom questionnaire version of the Neuropsychiatric Inventory. Other characteristics such as age, sex and education, in patients and caregivers; socioeconomic status, disability and comorbidities in the elderly; relationship with the elderly, needs and care-burden were assessed in caregivers.

**Results:** The most frequent symptoms were depression and sleep disorders in the four groups (without non-NDS neurodegenerative syndromes, parkinsonism, dementia and PDD, ranging from 23% to 49%. About a third of the elderly with parkinsonism, half of those with dementia, and 3 out of 5 of the elderly with PDD had 3 or more NPS. The odds ratios (OR) of each NPS measure by multivariate logistic regression models shown OR from 1.4 to 1.9 in the presence of parkinsonism; between 1.7 and 9.3 in the presence of dementia; and between 1.9 and 10.2 in the presence of PDD.

**Conclusion:** From a clinical and public mental health perspective, it is necessary to implement systematic methods for NPS screening, as well as develop support strategies for families and caregivers, mainly of those with neurodegenerative syndromes.

**Keywords:** neuropsychiatric symptoms, dementias, parkinsonism, parkinsonism-dementia, Latin-American

#### **4 - Dementia in Latin America – Social determinants of health and genetic ancestry. (Jorge J Llibre Guerra)**

**Authors:** Jorge J Llibre-Guerra<sup>1</sup>, Miao Jiang<sup>2</sup>, Isaac Acosta<sup>3,4</sup>, Ana Luisa Sosa<sup>3,4</sup>, Daisy Acosta<sup>5</sup>, Ivonne Z. Jimenez-Velasquez<sup>6</sup>, Mariella Guerra<sup>7</sup>, Aquiles Salas<sup>8</sup>, Ana M Rodriguez Salgado<sup>9</sup>, Juan C Llibre-Guerra<sup>10</sup>, Nedelys Díaz Sánchez<sup>11</sup>, Matthew Prina<sup>12</sup>, Alan Renton<sup>13</sup>, Emiliano Albanese<sup>2</sup>, Jennifer S. Yokoyama<sup>14,15</sup>, Juan J. Llibre Rodriguez<sup>11</sup>, for the 1066 Dementia Research Group.

1. Department of Neurology, Washington University School of Medicine in St. Louis, MO 63110, USA.
2. Institute of Public Health, Faculty of Biomedical Sciences, Università della Svizzera italiana, Lugano, 13 6900, Switzerland.
3. Laboratory of the Dementias, National Institute of Neurology and Neurosurgery, Mexico City 14269, Mexico.
4. National Autonomous University of Mexico, Mexico City 04510, Mexico.
5. Universidad Nacional Pedro Henriquez Ureña (UNPHU), Internal Medicine Department, Geriatric Section, Santo Domingo 1423, Dominican Republic.
6. Internal Medicine Department, Geriatrics Program, School of Medicine, Medical Sciences Campus, University of Puerto Rico, San Juan, Puerto Rico 00931, USA.
7. Instituto de la Memoria Depresion y Enfermedades de Riesgo IMEDER, Lima 15073, Perú
8. Medicine Department, Caracas University Hospital, Faculty of Medicine, Universidad Central de Venezuela, Caracas 1053, Venezuela.
9. Global Brain Health Institute, University of San Francisco California, San Francisco, CA 94117, USA.
10. Department of Neurology, Hospital de Salamanca, Salamanca 37007, Spain
11. Dementia Research Unit, Facultad de Medicina Finlay-Albarran, Medical University of Havana, Havana, 10400, Cuba.
12. Population Health Sciences Institute, Faculty of Medical Sciences, Newcastle University, Newcastle upon Tyne, NE2 4AX United Kingdom
13. Department of Neuroscience, Icahn School of Medicine at Mount Sinai, New York, NY 10029, USA.
14. Department of Neurology, UCSF Weill Institute for Neurosciences, University of California, San Francisco, San Francisco, CA 94158, USA.
15. Department of Radiology and Biomedical Imaging, University of California, San Francisco, San Francisco, CA 94158, USA.

**Objectives:** Leveraging the non-monolithic structure of Latin America, which represents a large variability in social determinants of health (SDoH) and high levels of genetic admixture, we aim to evaluate the relative contributions of SDoH and genetic ancestry in predicting dementia risk in Latin American populations

**Methods:** Community-dwelling participants aged 65 and older (N = 3808) from Cuba, Dominican Republic, Mexico, and Peru completed the 10/66 protocol assessments. Dementia was diagnosed using the cross-culturally validated 10/66 algorithm. The primary outcome measured was the risk of developing dementia. Multivariate linear regression models adjusted for SDoH were used in the main analysis.

**Results:** We observed extensive three-way (African/European/Native American) genetic ancestry variation between countries. Individuals with higher proportions of Native American (>70%) and African American (>70%) ancestry were more likely to exhibit factors contributing to worse SDoH, such as lower educational levels ( $p < 0.001$ ), lower SES ( $p < 0.001$ ), and higher frequency of vascular risk factors ( $p < 0.001$ ). In unadjusted analysis, individuals with predominant African ancestry exhibited a higher dementia frequency ( $p = 0.03$ ) and both Native American and African ancestry predominant groups showed lower cognitive performance relative to those with higher European ancestry ( $p < 0.001$ ). However, after adjusting for measures of SDoH, there was no association between ancestry proportion and dementia probability, and ancestry proportions no longer significantly accounted for the variance in cognitive performance (African predominant  $p = 0.31$  [-0.19, 0.59] and Native predominant  $p = 0.74$  [-0.24, 0.33]).

**Conclusion:** The findings suggest that social and environmental factors play a more crucial role than genetic ancestry in predicting dementia risk in Latin American populations. This underscores the need for public health strategies and policies that address these social determinants to reduce dementia risk in these communities effectively.

**Keywords:** Dementia, risk factors, Latinos, ancestry, social determinants of health

## **S9: Debate Series: The Future of Psychogeriatrics INFO NEEDED**

### **INFO NEEDED**

#### **S10: Addictions in Later Life an Emerging Crisis**

**Authors:** Mysore S. RENUKA PRASAD, BSc MBBS MR, Carlos Augusto de Mendonca Lima, MD, PhD, David Chong

Substance use disorders (SUDs) among older adults represent a growing but often overlooked public health crisis. This presentation explores the prevalence, impact, and management of SUDs in later life, focusing on alcohol, cannabis, and opiate use, as well as misuse of over the counter (OTC) medications.

Aging populations are increasingly at risk of developing SUDs due to factors such as chronic pain, mental health disorders, and social isolation. The physiological changes associated with aging also alter drug metabolism and increase susceptibility to adverse effects. Despite being the most common SUD in older adults, alcohol misuse often goes undetected. Cannabis use is rising among seniors due to changing legal landscapes, presenting both potential therapeutic benefits and risks. Opiate dependency often stems from chronic pain management, necessitating best practices for opiate use and alternatives. Additionally, misuse of OTC medications, such as sleep aids and pain relievers, is a growing concern.

Effective management of SUDs in older adults requires a multidisciplinary approach, integrating medical, psychological, and social support. Key principles include comprehensive assessment, personalized treatment plans considering comorbidities and polypharmacy, behavioral interventions, and ongoing education for healthcare providers on age-specific SUD challenges and management. Addressing SUDs in older adults is crucial for improving quality of life and reducing healthcare costs. This presentation aims to highlight the significance of early detection, appropriate intervention, and the importance of a holistic approach to managing SUDs in the aging population.

#### **The Clinical descriptions and diagnostic requirements for ICD-11 mental, behavioural and neurodevelopmental disorders (CDDR) and Non-Substance Uses Addictions in Old Age (NSUAOA)- Carlos Augusto de Mendonça Lima, M.D., MSci., DSci.**

The Eleventh Revision of the World Health Organization's International Classification of Diseases (ICD-11) represents major, comprehensive revision of the ICD in the last 30 years, and incorporates major advances in scientific evidence, best clinical practices and health information systems The Clinical descriptions and diagnostic requirements for ICD-11 mental, behavioural and neurodevelopmental disorders (CDDR), led by the WHO Department of Mental Health and Substance Use, constitutes the most broadly international, multilingual, multidisciplinary and participative revision process ever implemented for a classification of mental disorders.

The CDDR are an integral part of ICD-11, and have been developed specifically for the ICD-11 mental, behavioural and neurodevelopmental disorders chapter, providing substantially more detailed information needed to understand and apply this part of the classification.

A major improvement in the ICD-11 CDDR is the consistency of structure and information across major categories. The information provided for the main disorder categories in the CDDR is organized under the following headings:

- Essential features
- Additional clinical features
- Boundary with normality
- Course features
- Developmental presentations

- Culture-related features
- Sex- and/or gender-related features
- Boundaries with other disorders and conditions (differential diagnosis).

Yet we regret that age was not considered in this list of headings. This is a missing opportunity to provide specific care for older persons and develop research to study the potential influence of the ageing process on the clinical features of mental health conditions. This is particularly true in the case of NSUAOA, an area that has been particularly neglected besides the increase of the number of older adults in the global population.

At this lecture, it will be presented the CDDR criteria to classify the NSUAOA.

### **Non-Substance Addictions in Later Life in Emerging Crisis**

**Dr. M.S. Renuka Prasad, BSc, MBBS, FRC Psych. (UK), DGM (UK), FRCPC, DFAPA, DFAPA**

The generation known as “baby boomers” is the fastest growing segment of our society globally. Substance Use Disorders among this group is a growing health problem universally. Non-Substance Use Addiction is not far behind, but is getting far less attention, in spite of its impact on these individuals and their families, which could be devastating, but cannot be underestimated. This presentation aims to assess the epidemiology, impact and treatment of Non-Substance Use Addictions, like Gambling, Internet addiction in Later Life. Evaluated studies, indicate this cohort of these individuals are at higher risk of substantial negative impact socially, along with other medical and psychiatric comorbidities.

The current treatment models to address this new wave of older individuals, with Non- Substance Use Addiction behavior, are inadequate. The field of Geriatric Psychiatry, Geriatric Addiction Medicine, Social Services all must come together to address this emerging health concern.

### **S11: Ageism in intersection: Ensuring the human rights of older persons in the face of oppressions**

**Authors:** Liat Ayalon, Kiran Rabheru, Silvia Perel-Levin, Lia S. Daichman, Alexandre Kalache

**Summary:** Ageism is defined as prejudice, discrimination, and stereotypes towards people because of their age. Ageism can be directed towards individuals of all ages and be either positive or negative. Ageism can operate at the institutional level directed via legal and social policies, at the meso level as evident in interpersonal relations and at the micro level directed by people towards their own age and aging. Ageism can be experienced either consciously with full awareness or unconsciously, without the agent of ageism and/or the target of ageism being fully aware of it. The following presentations will address ageism in relation to older persons because of its well-known detrimental effects. An important aspect of ageism concerns the fact that it does not occur in silo. Instead, it is often age in intersection with other forms of discrimination, which results in the marginalization of older persons. Perel-Levin will analyse how ageism and age-based discrimination intersect with other forms of biases, discrimination, and inequalities based, such as disability, gender, gender identity and sexual orientation, ethnic background, and socioeconomic status. The presentation by Daichman will focus on age in intersection with gender by stressing the vulnerable place of older women and relate this to elder abuse. Ayalon will highlight self-directed ageism and intergenerational conflict as they manifest in older persons’ political activism. Finally, Rabheru will discuss findings concerning ageism in Canada based on data obtained from a diverse array of stakeholders, including researchers, healthcare professionals, social service providers, older persons, and advocates. Kalache will moderate the session and conclude with applied tools to ensure the human rights of older persons in the face of institutional, interactional, and intrapersonal ageism.

## **S12: OLDER PEOPLE: DISABILITY VS. AUTONOMY**

**Authors:** Isabel Lovrincevich, Cecilia Volpe, Bibiana Kompel, Wanda Gisbert

**Introduction:** The international demographic data indicates a growth in the population of older people, which is why it is necessary to begin to talk about the process of aging with disabilities from a bio-psycho-socio-functional approach and their socio-family environment according to the pillars of the Decade of Healthy Aging (2021-2030).

Taking into account disability situations in older persons as the guiding thread of concern about the increase on frailties, these presentations will highlight different contributions that open a debate regarding the challenge and the complexity to approach older persons with disabilities in gerontological work, the psychological aspects and the existing legal framework.

**Objectives:** This Symposium seeks to put on the scientific agenda a topic that make us rethink and reevaluate our intervention practices with a comprehensive approach to older people with disabilities.

**Methods:** Scientific communications and empirical research.

**Results:** Empirical data will be provided in reference to each Symposium's speakers presentations.

**Conclusion:** It is hoped to raise questions about whether it is possible to achieve the paradigm change from older persons as an object of care to a subject of law.

**Keywords:** Gerontology, Disability, Autonomy, Legal Framework

**Symposium Coordinator:** Cecilia Volpe

### **Speakers**

Dr Wanda Gisbert, Geriatrician: Comprehensive approach to frailty as a predictor of disability. Dr Isabel Lovrincevich, Lawyer: Autonomy and dependence in old age. Psychologist Bibiana Kompel: A topic that challenges us: New Psycho Gerontological approach.

## **S13: Impulsivity in geriatric, neurological and psychiatric pathologies. Importance of its diagnosis and prevention.**

**Authors:** María A. Brizuela, Gabriela F. Berkowski, Alicia B. Kabanchik, Cecilia M. Serrano

**Introduction:** Impulsivity is a common feature of human behavior, often described in psychopathology, but evanescent and lacking a strict, clear and singular definition. The question is, can a person control his or her actions? The turning point for our interest is impulse control in the elderly. Falls, accidents, transgressions against the law and an altered family life may be the consequences of the impulsive spectrum without ignoring consequences such as pathological gambling, traffic accident, lethal fracture and even suicide. Certain neurological, psychiatric, and geriatric pathologies present with Impulsivity with impulsivity generally undetected. It is often mistaken for a character trait of old age, leading to stigmatization and "ageism".

**Objective:** To highlight the importance of the clinical presentation of Impulsivity in older adults for its early diagnosis and therapy.



**Method:** PUBMED literature review. Presentation of clinical cases in an interdisciplinary sharing Presentation of clinical cases in an interdisciplinary sharing.

**Results:** Early diagnosis of Impulsivity and its treatment offers a better quality of life to the patient and his family. Impulsivity is a symptom that involves several diseases, which is why its early diagnosis and adequate therapy allows a better quality of life for the elderly and the environment, since it may be a risk factor for early institutionalization.

**Conclusions:** It is a subject that is not often addressed and is usually solved by polymedicating. We consider the need for a differential diagnosis for an appropriate therapy.

#### **S14: Apathy in dementia: Difficult to diagnose, difficult to treat**

**Authors:** Santiago O'Neill, MD, Ignacio Flores, Natalia Sierra, Florencia Vallejos, Guido Dorman

**Summary:** Apathy is one of the most common neuropsychiatric symptoms in dementia, mainly in Alzheimer's disease and lobar frontal degeneration. Although diagnostic criteria guidelines have been developed to facilitate diagnosis and multiple drugs have been evaluated for treatment, apathy remains a very important challenge in clinical practice. The objective of the symposium is that specialists from Favaloro Foundation University Hospital Memory clinic in Buenos Aires provide an update on the evidence available for both the apathy diagnosis and treatment (pharmacological and non-pharmacological) patients with dementia, as well as showing that will come in the near future. The specialists will base the dissertation both on the available evidence and on their robust clinical experience in the dementia field. The presentation will focus on the available evidence diagnosis, differential diagnosis, and the best therapeutic tools available, pharmacological and non-pharmacological. Learning and knowing about apathy is essential for correct management.

Up today, apathy diagnosis is based on clinical signs and symptoms. General diagnostic criteria and specific criteria for some diseases have been developed. Memory clinic specialist will show the available tools and evidence for apathy diagnosis, the best way to differentiate from other similar disease/symptoms and will provide their robust clinical experience in this field.

Treatment of apathy is still a challenge in clinical practice. Several pharmacological treatments did not show clear symptoms improvement so non pharmacological treatment has become a fundamental tool for the patients- A specialized neurophysiologist will provide the actual techniques utilized in daily practice to treat apathy in dementia patients.

Pharmacological treatment for apathy is still a challenge. Multiple drugs have been tested in clinical trials but without significant symptoms improvement. Memory clinic specialist will show available evidence for pharmacological treatment for apathy and will provide their experience in clinical practice for subject management.

Considering that available pharmacological treatment for apathy did not show strong symptoms improvement, there is an unmet need to find a treatment for apathy- Specialist will present available information for ongoing research for apathy.

## **S15: Artificial intelligence in psychogeriatrics: creating a framework Ipsit Vahia**

**PLACEHOLDER**

## **S16: Integrating Human Rights and Mental Health Care and Support for Older Persons**

**Authors:** Carlos Augusto de Mendonca Lima, MD, PhD, Kiran Rabheru, MD, Liat Ayalon, Silvia Perel-Levin

Our world is rapidly aging, with medical and public health advancements extending lifespans without necessarily enhancing the quality of those additional years. Individuals in their later years aspire to preserve dignity, maintain autonomy and independence, foster social inclusion, uphold justice and equality, be respected for their identity, and pursue good health, security, purpose and engagement throughout their lives. Unfortunately, ageism is pervasive and has a significant negative impact on the lives of older individuals. Ageism is the root source of severe violations of the human rights of older persons, incontrovertibly uncovered by the COVID-19 pandemic. Ageism not only damages global health and harms the world's economy, but also poses a major barrier for older persons everywhere, especially in preventing them from receiving the human rights-based care and support they deserve. This approach to health specifically aims at realizing the right to health and other health-related human rights. These rights translate as social determinants of health and can be integrated into clinical practice. Their implementation is mainly dependent of political will and fair distribution of money, power and resources. Planning health care and support for older persons should be guided by human rights standards and principles with final goal of the empowerment of rights-holders to effectively claim their health rights.

### **Setting the scene: International Human Rights, Mental Health and Older persons**

We all are, in principle, covered by the international human rights system. However, the current international human rights framework does neither include explicit guarantee against ageism, nor explicit obligation on States to take active measures to eliminate ageism and its discriminatory consequences. Older persons are very rarely mentioned in human rights treaties. All rights are equally important as set out in the International Bill of Human Rights (Universal Declaration of Human Rights; the International Covenant for Civil and Political Rights; and the International Covenant for Economic, Social, and Cultural Rights) and all international human rights treaties. Everyone, whoever and wherever they are, has an inherent right to the highest attainable standard of health, including the right to available, accessible, acceptable and affordable good quality care; and the right to liberty, independence and inclusion in the community. Unfortunately, older people with mental health conditions or cognitive decline experience a wide range of human rights violations. Coercive practices, social exclusion and discrimination are still too prevalent compounded by the lack of basic rights such as food and adequate housing. This presentation will discuss how the human rights legal framework can be applied to mental health care and support while advocating for better protection of the human rights of older persons through a dedicated UN Convention.

## **Our role and impact with the Open-Ended Working Group on Aging (OEWGA), the Office of the High Commissioner for Human Rights (OHCHR), and the World Health Organization (WHO).**

**Authors:** Carlos Augusto de Mendonca Lima, MD, PhD, Kiran Rabheru, MD, Liat Ayalon, Silvia Perel-Levin

### **Objectives:**

1. Highlight the Collaborative Efforts of Key International Organizations:

Illustrate the critical role of the International Psychogeriatric Association (IPA), World Psychiatric Association (WPA), and other organizations in working with UN bodies to advance the human rights of older people.

2. Emphasize the Importance of Increased Engagement and Advocacy:

Discuss why deeper engagement from mental health professionals and advocacy groups is necessary to influence global policies and initiatives that protect and promote the rights of older persons.

3. Demonstrate the Impact of International Cooperation:

**Summary:** Provide examples of how collaboration with the UN Open-Ended Working Group on Aging, the Office of the High Commissioner for Human Rights, and the World Health Organization has led to tangible improvements in the lives of older persons, particularly those with mental health conditions.

In an increasingly interconnected world, the role of international organizations such as the International Psychogeriatric Association (IPA) and the World Psychiatric Association (WPA) has become vital in promoting the human rights of older people. This talk will explore how these organizations collaborate with key UN bodies, including the Open-Ended Working Group on Aging, the Office of the High Commissioner for Human Rights, and the World Health Organization, to address the unique challenges faced by older persons, especially those who live with mental health conditions. By engaging more deeply with these global efforts, we can enhance scientific advocacy, develop comprehensive policies, and implement effective interventions that safeguard the rights and well-being of older persons. This presentation will underscore the necessity of cross-sector engagement and international cooperation in fostering an inclusive world where the human rights of older people are fully actualized and protected.

### **“The UN Decade’s and our own efforts to address ageism”**

Ageism is defined as stereotypes, prejudices, and discrimination towards people because of their age. It can be directed towards people of any age and be either positive or negative. However, its negative impact, especially on older persons is well documented. Given its substantial impact, it is one of four pillars identified by the UN Decade as essential to tackle to achieve a world for all ages. The UN Global Report on Ageism proposed three evidence-based strategies to reduce ageism. In this presentation, I will illustrate one such strategy, which consists of a 90-minute educational workshop. The workshop was delivered to 318 Israeli adolescents (aged 11 to 15, 73.9% females) to increase their familiarity with the concept, reduce their negative ageist stereotypes, and increase their inclination to become social activists via social media. We found an improved familiarity with the concept ‘ageism’, while adolescents drew upon concepts such as discrimination and racism to define ageism. Following the intervention, a diverse range of age-related stereotypes emerged, signaling a shift toward more positive perceptions, with notable growth in positive age stereotypes, especially among females. Finally, about two-thirds of created memes (online visual and textual social messages) targeted ageism against older persons, 18.98% promoted an age-inclusive world, and 17.15% addressed ageism towards children and young persons. Implications for reducing ageism in adolescence and for measuring social change are discussed.

### **S16: Public Lecture: A New Age in Alzheimer's Disease**

**Authors:** Jacobo Mintzer, Edgardo Reich, Diego Aguilar

Alzheimer's disease is a neurodegenerative disorder affecting over 55 million people worldwide, with 300,000 sufferers residing in Argentina. Over the last 10 years with the emergence of monoclonal antibodies, we have witnessed a radical change in our approach to Alzheimer's disease. Today, we can see the lesion of Alzheimer's disease in the living brain up to 17 years before the onset of symptoms. Furthermore, we have developed blood tests that allow us to identify those at risk to have amyloid in the brain and, in the last two years, a new group of disease-modifying treatments has been approved for clinical use. What remains to be elucidated is how these revolutionary changes will impact patient care and perceptions of Alzheimer's disease in society. Additionally, how these new, often expensive tools to fight Alzheimer's disease will be accessible in developing countries is also unknown. These issues will be discussed during our presentation with a panel of experts in the field. Dr. Reich will present the latest advances on biomarkers and new treatments, Dr. Aguilar will discuss the implications of this new approach for the diagnosis and treatment of Alzheimer's disease around the world, and Dr. Mintzer will discuss different options that will make these treatments available in developing countries with a focus on Latin America.

### **S17: The translation of digital technology to promote mental health of older adults**

**Authors:** Sally Chan<sup>1</sup>, Rick Kwan<sup>1,2</sup>, Fowie Ng<sup>1,3</sup>, Bobo Hi-Po Lau<sup>4</sup>, & Alex Chan<sup>1,5</sup>

1. Translational Research Centre for Digital Mental Health, Tung Wah College, Hong Kong
2. School of Nursing, Tung Wah College, Hong Kong
3. School of Management, Tung Wah College, Hong Kong
4. Department of Counselling & Psychology, Hong Kong Shue Yan University, Hong Kong
5. School of Arts and Humanities, Tung Wah College, Hong Kong

Digital mental health - The use of apps, the internet, mobile technologies, virtual reality, and social media for mental health and wellness - rapidly rose in popularity during COVID-19 and continues to expand in the post-COVID-19 era. There is a general recognition of the value and contribution of digital technologies in providing personalized mental health care tools, including health education, health promotion, health maintenance, diagnosis, treatment, interventions, and rehabilitation.

Globally, around 14% of adults aged 60 and over live with mental health conditions, with depression and anxiety being the most common. In Hong Kong, a recent study found that 14% of older adults said they had displayed signs of depression, and 12% had experienced anxiety. Critical risk factors for mental health conditions in older adults include social isolation, loneliness, reduced mobility, and frailty. However, many mental health problems are unrecognized and untreated. Lack of available mental health services, stigma, and cost are significant barriers to help-seeking.

The high prevalence rates of mental health problems and low levels of access to traditional mental health services, combined with the rapid development of digital and emerging technologies, led to the rapid development of digital mental health services. We would like to know whether digital mental health works for older adults and what factors contribute to the success of digital mental health interventions.

This symposium brings together a group of multidisciplinary researchers in digital mental health. We will present our work and collectively address four key areas:

1. Digital engagement, social support and mental health of older adults.
2. Associations between social networks and technology acceptance with depressive symptoms in community-dwelling older adults.
3. The effectiveness of a Digital Buddy program on mental well-being and depressive symptoms of older adults.
4. The effectiveness of a therapeutic virtual reality experience program on mental well-being in older adults living with physical disabilities in long-term care facilities.

The symposium intends to stimulate global collaboration towards strengthening principles in digital mental health while elucidating additional factors that influence this technology-enabled approach to support older adults in diverse contexts to achieve optimal mental well-being.

### **Abstract 1: Digital engagement, social support and mental health: Latent profile analysis on the intergenerational digital divide in Hong Kong**

**Authors:** Bobo Hi-Po Lau\*<sup>1</sup>, Eric Ngai-Yin Shum<sup>1</sup>, Chi-Pun Liu<sup>2</sup>, Fu-Fai Fong<sup>2</sup>, Alex Pak-Ki Kwok<sup>3</sup>, Alex Chi-Keung Chan<sup>4,5</sup>

1. Department of Counselling & Psychology, Hong Kong Shue Yan University, Hong Kong
2. Department of Social Work, Hong Kong Shue Yan University, Hong Kong
3. Data Science and Policy Studies Programme, Faculty of Social Science, The Chinese University of Hong Kong, Hong Kong
4. Translational Research Centre for Digital Mental Health, Tung Wah College, Hong Kong
5. School of Arts and Humanities, Tung Wah College, Hong Kong

\*presenting and corresponding author

**Objectives:** The pandemic has resulted in pervasive digital transformation in our daily lives, particularly those of older adults. In Hong Kong, smartphone ownership among older adults rose from 68.1% in 2020 to 90.7% in 2022. Accordingly, the intergenerational digital divide and its implication on older adults' well-being may have changed, and this study was conducted to address this.

**Methods:** A telephone survey with a random sample of 878 adults was conducted from December 2023 to January 2024 (Response rate = 42%). Based on Van Dijk (2013)'s Resources and Appropriation Theory, we operationalized the digital divide by ownership of smart devices, literacy (solving tech problems by oneself, literacy in information search, social media, handling documents, online shopping/payment, and online collaboration), and usage (daily smartphone and laptop usage, frequency of using social media, online payment, m-health, entertainment apps, and information apps). Latent profile analysis was conducted on these indicators.

**Results:** Three classes were revealed – Low (12.0%), Intermediate (41.8%), and High (46.2%), with significantly different distributions by age groups (<55: 3.5%, 23.2%, 73.3%; 55+: 20.1%, 59.7%, 20.1%). Low and High had the lowest and highest scores, with Intermediate in between on most indicators (e.g., Low, Intermediate, and High groups owned 1.6, 2.4 & 3.1 devices, and the mean hours of daily smartphone use were 2.8, 4.2, & 5.3, respectively), except social media and information search literacies where Intermediate and High were comparable. While high (vs low) correlated with greater 'activity and vigor' (from WHO-5 Well-Being Index) and social support across age groups, entertainment apps conveyed more mental health benefits for older adults (Aged 55+). Associations of poor literacies with mental health were also less detrimental to older adults than younger groups.

**Conclusion:** Against ageist assumptions, digital engagement predicted mental health and social support for all ages, yet finer indicators revealed an age-related divide in mental health. Practitioners should continue engaging with all ages to enhance digital inclusivity yet segment their efforts by capitalizing on the age-relevant positive

impact of digital engagement, such as using the entertainment element of digital technologies when working with older adults.

## **Abstract 2: The associations of technology acceptance and social networks with depressive symptoms in community-dwelling older adults**

**Authors:** Rick Yiu Cho Kwan<sup>\*1,2</sup>, Janet Lok Chun Lee<sup>3</sup>, Jing-jing Su<sup>4</sup>, Vivian Lou<sup>5,6</sup>

1. Translational Research Centre for Digital Mental Health, Tung Wah College, Hong Kong
2. School of Nursing, Tung Wah College, Hong Kong
3. Department of Rehabilitation Sciences, The Hong Kong Polytechnic University
4. School of Nursing, The Hong Kong Polytechnic University
5. Department of Social Work & Social Administration, The University of Hong Kong
6. Sau Po Centre on Ageing, The University of Hong Kong

\*presenting and corresponding author

**Objectives:** The study's objective was to examine the associations between social networks and technology acceptance with depressive symptoms in community-dwelling older adults.

**Methods:** This was a cross-sectional survey conducted in community settings in Hong Kong. Eligible participants were community-dwelling old adults aged  $\geq 60$  years. Variables included social network, measured by the 6-item Lubben Social Network Scale; depressive symptoms, measured by the 9-item Patient Health Questionnaire; and technology acceptance, measured by the 14-item Senior Technology Acceptance Model. Hierarchy linear regression was employed to examine their associations. The independent variables were social network and technology acceptance. The dependent variable was depressive symptoms. Covariates included age and gender. Unadjusted models of the two independent variables were constructed. It was followed by three models including different independent variables, including [Model 1: social network], [Model 2: social network + technology acceptance], and [Model 3: social network + technology acceptance + covariates]. R<sup>2</sup>-changes were computed between models.

**Results:** This study recruited 380 eligible participants with a mean age of 66.5, and most participants were female (57.4%). In the unadjusted model, social network ( $\beta = -0.081$ ,  $p = 0.010$ ) and technology acceptance ( $\beta = -0.041$ ,  $p < 0.001$ ) were significantly associated with depressive symptoms. In Model 1, social network ( $\beta = -0.081$ ) was significantly associated with depressive symptoms. The R<sup>2</sup> is 0.017 and the R<sup>2</sup>-change was significant ( $p = 0.010$ ). In Model 2, social networks became insignificant ( $\beta = -0.041$ ,  $p = 0.180$ ) after adding technology acceptance ( $\beta = -0.058$ ,  $p < 0.001$ ) which was significantly associated with depressive symptoms. The R<sup>2</sup> is 0.124 and the R<sup>2</sup>-change was significant ( $p < 0.001$ ). In Model 3, the effect of social networks remained insignificant ( $\beta = 0.019$ ,  $p < 0.903$ ), and the technology acceptance remained significant ( $\beta = -0.051$ ,  $p = 0.011$ ). The R<sup>2</sup> was 0.124 and the R<sup>2</sup>-change was insignificant ( $p = 0.692$ ).

**Conclusion:** Social networks are known to be protective against depressive symptoms in the literature that was also observed in this study. However, depressive symptoms are more associated with technology acceptance than social networks and the effect is not affected by age or gender. Older adults' psychological well-being may be improved by fostering a positive attitude towards technology use and the healthcare system. Policies could offer older adults technology learning for better mental well-being and depression prevention.

### **Abstract 3: The effects of Digital Buddy on the mental well-being and depressive symptoms of older adults: A cluster randomized controlled trial**

**Authors:** Sally Chan<sup>\*1</sup>, Rick Yiu Cho Kwan<sup>1,2</sup>, Edward Man Fuk Leung<sup>3</sup>, Teresa Bik Kwan Tsien<sup>4</sup>, Fowie Ng<sup>1,5</sup>

1. Translational Research Centre for Digital Mental Health, Tung Wah College, Hong Kong
2. School of Nursing, Tung Wah College, Hong Kong
3. Hong Kong Association of Gerontology, Hong Kong
4. Department of Applied Social Sciences, The Hong Kong Polytechnic University, Hong Kong
5. School of Management, Tung Wah College, Hong Kong

\*presenting and corresponding author

**Objective:** The study's objective was to evaluate the effectiveness of a Digital Buddy program on mental well-being and depressive symptoms of older adults.

**Methods:** This study employed a multi-center, cluster-randomized, two-parallel-group, non-inferiority, controlled trial design with a 1:1 group allocation ratio. Participants were recruited in elderly community centers and nursing homes and were eligible if they were aged > 60 years and mentally capacitated. Participants were clustered by centers and randomly allocated into two groups. In the intervention group, a series of face-to-face training sessions for a minimum of 23 hours of 14 sessions at a trainer-to-participant ratio of 1:10 were provided by Digital Buddies (i.e., young volunteers) to participants for six months. The training contents included face-to-face transfer of technological skills about using various useful apps on smartphones and educational videos promoting mental health care. The training contents were packaged as an app and launch-able on the website. The participants were tele-mentored using smartphones by Digital Buddies during the intervention period. In the control group, participants received the usual care. The outcomes included mental well-being measured by the World Health Organization Five Well-being Index and depressive symptoms measured by the 9-item Patient Health Questionnaire. The outcomes were measured at baseline and post-intervention. Generalized estimating equations were used to examine the within-group and interaction effects of "groups" and "time points" on the outcomes.

**Results:** The study recruited 310 eligible participants from 40 centers. The mean age of participants was 74.2 years, and most of the participants were female (64%). Each group comprised equally 155 participants. The result showed that mental well-being was significantly improved after the intervention in the intervention group ( $p < 0.001$ ) but not in the control group ( $p = 0.106$ ). The interaction effect on mental well-being was not significant ( $p = 0.132$ ). The depressive symptoms were significantly reduced after the intervention in the intervention group ( $p = 0.047$ ) but not in the control group ( $p = 0.398$ ). The interaction effect on depressive symptoms was not significant ( $p = 0.601$ ).

**Conclusion:** The Digital Buddy programme promoted mental well-being and reduced depressive symptoms in older adults but its effect might not be superior to the usual care.

### **Abstract 4: The effect of therapeutic virtual reality experience on the mental well-being and loneliness of older adults living with physical disabilities in long-term care facilities: Preliminary findings of an ongoing randomized controlled trial**

**Authors:** Fowie Ng<sup>\*1,2</sup>, Rick Yiu Cho Kwan<sup>1,3</sup>, Linda Chiu Wa Lam<sup>4</sup>, Rebecca Choy Yung<sup>5</sup>, Sally Chan<sup>\*1</sup>

1. Translational Research Centre for Digital Mental Health, Tung Wah College, Hong Kong
2. School of Management, Tung Wah College, Hong Kong
3. School of Nursing, Tung Wah College, Hong Kong
4. Department of Psychiatry, The Chinese University of Hong Kong, Hong Kong
5. Golden Age Foundation, Hong Kong

\*presenting and corresponding author

**Objectives:** The objective of the study was to evaluate the effectiveness of a therapeutic virtual reality experience program on mental well-being in older adults living with physical disabilities in long-term care facilities.

**Methods:** This study employed an assessor-blinded, two-parallel-group, non-inferiority, randomized controlled trial with a 1:1 group allocation ratio. Eligible participants are aged  $\geq 60$  years and living with physical disabilities. Participants were recruited in long-term care facilities (LTCF). Participants were individually randomized into groups. In the intervention group, participants received a 6-week virtual reality experience (VRE) program for 12 sessions, and each session lasted for one hour with two sessions per week. In each session, the program was delivered by a trained young volunteer at a trainer-to-participant ratio of 1:3, and the participants within the same group were immersed in the same virtual environment. Each session comprises three parts: 1) briefing and setup, 2) virtual reality experience, and 3) debriefing. The 12 VRE sessions developed into three therapeutic themes: natural scenery, outdoor leisure, and reminiscence. The participants were immersed in a therapeutic virtual environment in the VRE via head-mount devices. The young volunteers facilitated participants to explore in the virtual environment. The facilitator invited participants to share their VRE in the group during the debriefing. In the control group, participants received the usual care. The outcomes were mental well-being as measured by the World Health Organization Five Well-being Index and loneliness as measured by the 6-item De Jong Gierveld Loneliness Scale and measured at baseline and post-intervention. Generalized estimating equations were used to examine the within-group and interaction effects of “groups” and “time points” on the outcomes.

**Results:** The trial started in February 2024, is ongoing with >30 LTCFs indicated interest to participate in the study and is expected to be completed by December 2024. It aims to recruit 216 participants. It is hypothesized that the program will promote mental well-being and reduce loneliness more than in the usual care provided by LTCFs.

**Conclusion:** The preliminary findings will be presented at the conference. The data of >50% of the expected participants will be reported

### **S18: Comprehensive Care for the Elderly: from Stigmatization to Therapeutic Intervention**

**Authors:** Florencia Velázquez-Morales, José Luis Sierra-López, Marieli Rivera-Ortiz, Yanina Gisela Góngora

Globally, there is an observed increase in the elderly population. In Puerto Rico, 30% of the population is over 60 years old, positioning it as the sixth country worldwide with the highest aging population. This presentation discusses the demographic profile, ageism, stigma, the ethics of care, spirituality, and specialized therapeutic interventions.

Ageism is characterized by a series of stereotypes, prejudices, and discrimination, primarily rooted in social constructs. It occurs across organizations, political structures, and individual and social attitudes. This social phenomenon is a predisposing factor for social stigma, defined by sociologist Ervin Goffman (1963) as a discreditable mark borne by those who possess it.



Grandparents who raise their grandchildren face diverse psychosocial effects stemming from interactions with professionals, the State, and society in their role as caregivers, impacting their physical and mental health. Through qualitative methodology, reflections are proposed on these elderly individuals who are socially expected to be cared for in this stage of life yet find themselves becoming caregivers for others. The effects of stigma and self-stigma on their daily and family lives are examined.

The ethics of care and spirituality are crucial factors contributing to a fuller and more resilient life for the elderly. Emphasizing the need to recognize and value caregiving relationships, not only as individual actions but as social practices that sustain common well-being, is essential.

Both the ethical principles of care and spirituality can be vital sources of comfort and strength, creating an environment of love that benefits the entire family.

This presentation not only provides a comprehensive view of the current situation of the elderly in Puerto Rico but also proposes practical and effective solutions to improve their quality of life and well-being. Attention to this social sector requires effective therapeutic interventions based on evidence, which positively impact the care and treatment of the elderly, providing crucial support for their well-being and stable mental health.

With a focus on continuous improvement, this study seeks to foster a greater understanding and concrete actions that benefit this vulnerable population, ensuring comprehensive and dignified care during their years of greatest need.

### **Introducing the Profile of the Elderly in Puerto Rico and Social Stigmatization**

**Speaker:** Dra. Florencia Velázquez-Morales

**Keywords:** older adults, biopsychosocial, stigma, ageism, social construct, quality of life, elderly, spirituality, Puerto Rico

**Summary:** In the current world context, there is an increase in the population of older adults and a decrease in generational turnover. In the local context of Puerto Rico, this phenomenon is not an isolated fact of reality and is reflected in the growing number of older adults. According to the latest statistics, 30% of the current population is over 60 years old, making the island the sixth most aging country in the world. This poses a series of challenges that deserve special attention from the various fields of human behavior. For this reason, this paper focuses on addressing the various critical aspects related to the elderly, addressing the demographic profile and ageism as a predisposing factor of stigma.

To make an x-ray of this demographic group is much more than a statistical look, it deserves to be deepened in the biopsychosocial and spiritual aspects that allow a better understanding and attention to their needs. Ageism is a behavior characterized by a series of stereotypes, prejudices and discrimination against older adults, whose origin lies mainly in social and cultural constructs towards the population under discussion. Its manifestation occurs at diverse levels and takes different forms, transversal in organizations and political structures, as well as in attitudes and beliefs towards older people. The presence of ageism in our environment requires greater and more specific attention, from a multidisciplinary and multisectoral approach. (Martínez, et. al., 2022).

This social phenomenon acts as a predisposing factor to social stigma, defined by the sociologist Ervin Goffman (1963) as a discrediting mark on those who bear it, which excludes them from the rest of society. He divides

stigma into three categories: bodily abominations, character flaws, and tribal associations, which have a series of consequences such as social isolation, lack of access, and psychological effects, among others. Stigma can function as a barrier to accessing mental health services and negatively influence factors such as treatment adherence, symptom severity, or suicide risk. (Aguilar, 2023) It is important to address the stigma and ageism that make them invisible and underestimate their abilities to improve their quality of life.

### **The Role of Grandparents**

**Speaker:** Dr. José Luis Sierra

**Keywords:** grandparent caregivers, family dynamics, health, education, Puerto Rico, stigma, qualitative research.

**Summary:** Custodial grandparent families, where grandparents are the primary caregivers for their grandchildren, are often excluded from the traditionally constructed and socially privileged family model. These families face significant challenges related to health, self-care, and childcare due to difficulties in accessing and being recognized for social services. Redefining family meanings is crucial, as is listening to their perspectives on life. Statistical variations in the number of custodial grandparent families suggest that they are facing increasing challenges or that economic conditions in Puerto Rico prevent them from assuming caregiving roles as they would like.

The literature indicates that health and education are the most critical areas where these families face difficulties, impacting the family unit. Grandparents raising their grandchildren experience various psychosocial effects due to interactions with professionals, the state, and society in their caregiving role, affecting their physical and mental health. Through in-depth interviews and qualitative methodology, this presentation will reflect on these older adults who, instead of being cared for in this stage of life, become caregivers. The effects of stigma and self-stigma on their daily and family life will be explored. Reflections will be presented from a critical theoretical perspective, highlighting, and problematizing the situation.

Recommendations for policies and practices that improve support for these families in Puerto Rico will also be discussed. Emphasis will be placed on the need for public policies that include financial subsidies, tax exemptions, access to mental health and wellness services, training programs, and awareness campaigns to recognize and support the role of grandparent caregivers.

In conclusion, the presentation will address how a better understanding and attention to the needs of grandparents can significantly improve their quality of life and well-being, thus benefiting the family as a whole and society in general.

### **The Ethics of Care and Spirituality in Elderly Care**

**Presenter:** Dra. Marieli Rivera Ortiz

**Keywords:** ethics of care, spirituality, elderly caregivers, Puerto Rico, interdependence, resilience.

The ethics of care is a normative approach emphasizing caregiving relationships and their underlying motivations. It recognizes the importance of interpersonal relationships and human interdependence, highlighting the shared responsibility in caring for others. The ethics of care can be defined as a practice and value that responds to human needs, building trust and connections between people (Held, 2006). In the context of grandparents caring for their

grandchildren, this perspective becomes particularly significant, especially in Puerto Rico, where many grandparents find themselves in such roles.

It is crucial to recognize and value caregiving relationships not only as individual actions but also as social practices that sustain community well-being. Grandparent caregivers, through their ability to provide emotional stability and support, promote the moral and social development of children in an environment of trust and reciprocity. However, this responsibility brings significant challenges, such as feelings of loss, resentment, guilt, and considerable financial and emotional tensions.

In Puerto Rico, data from the Puerto Rico Community Survey (2014–2018) by the U.S. Census Bureau indicate that approximately 89,369 grandparents live with their grandchildren. Of this group, around 41.4%, equivalent to 36,961 grandparents, bear the primary responsibility for their grandchildren's care.

Given the significant number of grandparents who assume primary caregiving responsibilities in Puerto Rico, it is essential to consider the ethics of care and the importance of spirituality as factors contributing to a more fulfilling and resilient life for the elderly. Integrating spiritual care into their support provides an additional source of resilience and solace, enhancing their ability to create a stable and loving environment for the children under their care. In this scenario, grandparent caregivers not only improve their own well-being but also leave a lasting legacy of emotional strength and peace for future generations.

This presentation aims to explore how the ethics of care and spirituality can enhance the well-being and resilience of elderly caregivers in Puerto Rico. By acknowledging the shared responsibility and interdependence in caregiving, we can better support those who play such a vital role in their families and communities.

## **Therapeutic Interventions with the Elderly**

**Presenter:** Lic. Yanina Gisela Góngora

**Keywords:** caregiver grandparents, resilience, strengths model, therapeutic intervention, Puerto Rico, mental health.

The role of grandparents as primary caregivers for their grandchildren in Puerto Rico presents significant emotional and practical challenges, especially in later stages of life. Addressing these challenges not only meets daily practical needs but also promotes emotional well-being, essential for fostering lasting resilience.

This presentation aims to explore and evaluate the effectiveness of therapeutic interventions based on the strengths model to enhance the resilience and emotional well-being of caregiver grandparents in Puerto Rico. Assuming parental roles at an advanced age can profoundly impact the mental health and well-being of grandparents, exacerbating stress and anxiety. The lack of support from public policies aggravates these challenges, making it urgent to increase institutional and community recognition and support. In this context, the strengths model, which focuses on identifying and enhancing individuals' internal capacities and resources, has proven effective in improving resilience and emotional well-being. A study by Fox et al. (2022) demonstrated that a strengths-based educational intervention significantly improved caregiver grandparents' self-efficacy, with sustained effects over time. This approach acknowledges that everyone possesses knowledge, talents, skills, and resources to build a life according to their own terms and goals (Saleebey, 2006).

This research will review previous studies, academic articles, and institutional reports on the effectiveness of strengths-based interventions for caregiver grandparents. Academic databases and recognized sources will be utilized to compile and analyze relevant information. Moreover, this therapeutic approach not only offers

individual solutions but also promotes the creation of support networks within the community and family, essential for alleviating caregiving burdens. This approach effectively addresses the complexities of intergenerational caregiving, proposing a support model that can be replicated and adapted in different contexts and communities.

Strengths-based interventions showed sustained improvements in caregiver grandparents' self-efficacy, indicating their feasibility and effectiveness. Finally, recommended public policies include financial subsidies, tax exemptions, access to mental health and wellness services, training programs, and awareness campaigns to recognize and support caregiver grandparents. In conclusion, a holistic approach encompassing therapeutic interventions, the strengths model, and community and institutional support is crucial for improving elderly caregivers' well-being and mental health in Puerto Rico.

### **S19: Aging and Dementia problems in Latin America and the Caribbean: education, healthy ageing and recent research linked to microglia and microbiota**

**Authors:** Dr. Cecilia M Serrano, Dr. Tomas León, Dr. Alicia Kabanchik, Dr. Maria Andrea Carosella

**Summary:** Provide a vision of the current situation of ageing and dementia in Latin America and the Caribbean (LAC). The importance of assessing the needs of people with dementia, supporting families, integrating risk reduction strategies, healthy ageing, promoting training programs to support primary care, and promoting new advances in the Microglia axis concept will be highlighted—brain intestine. Despite the enormous burden that dementia generates, it continues to be an underdiagnosed entity. It is essential to control its prevalence, incidence, as well as its different social repercussions. It is crucial to promote direct actions aimed at reducing risk, disseminating knowledge of dementia, and promoting new lines of research that contribute to a healthier life for patients and their families.

#### **Microglia microbiota aging- Dr A Kabanchik**

In recent years, research interest arose in microglia-microbiota, normal and pathological aging, and new therapeutics. The objective of this presentation is to collaborate with the dissemination of this research and stimulate new developments. Concepts, functions, modifications linked to microglia, microbiota and gut brain axis were defined during the aging process associated with the increase in intestinal permeability, neuroinflammation and its impact on stress, depression and cognitive impairment. During aging, microglia changes from the resting state to the activated state and contributes to the development of neurodegenerative diseases. Dystrophic microglia is differentiated, characteristic of aging, from hypertrophic microglia. Dysbiosis of the gut microbiota could lead to increased permeability of the gastrointestinal tract, which induces a higher level of circulating bacterial products. Changes observed in the intestinal microbiota could be the cause or result of neuroinflammation or alterations in the microglia. In older people, microbiota dysbiosis alters the homeostasis of the microenvironment and the status and function of the microglia.

**Conclusion:** The regulation of microglia was proposed as a potentially effective therapeutic strategy in chronic inflammatory pathologies. Remodeling of the brain intestinal axis using psychobiotics appears promising in reversing depressive symptomatology. The continued exploration of the intersection of the microbiota, immunology and biology has great therapeutic promise.

## **Dementia training needs of primary care professionals- Dr Tomás León**

**Background:** Chilean guidelines, as most Latin-American and global recommendations, suggest that most people with dementia and their care partners should be managed in primary care. However, the knowledge and confidence of primary care teams in managing dementia is low, and training programs to support primary care are either lacking or unsuccessful in increasing the confidence of primary care teams.

**Objectives:** Create and evaluate an online course on dementia for primary care.

**Methods:** Qualitative research methods were used, including focus group interviews with health professionals and individual interviews with people with dementia and their care partners to identify the primary needs regarding dementia. An online course was created, and an analysis was performed on the pre and post-course survey results.

**Results:** The primary needs identified by health professionals were the diagnosis process, treatment and interpersonal skills. More than 50% of the sample expressed low confidence in making a differential diagnosis. Less than 30% of the sample felt confident in providing post-diagnostic support and non-pharmacological interventions. For people with dementia and care partners' primary needs were diagnosis disclosure and post-diagnosis support. Initial results show improvement in their confidence in diagnosis, treatment, and care and support for caregivers.

**Conclusions:** Our study supported the need for more training in dementia for primary care and identified additional educational content not usually included in standard dementia education. Including the voices of care partners and people with dementia was novel and ensured that dementia training in Chile was informed and tailored to the needs of the people who matter most. Expansion and adaptation for the Latin American public is ongoing.

## **Dementia in Latin America and the Caribbean: situation and future challenges- Cecilia M Serrano, MD, PhD**

Dementia is a major global health problem that has social and economic repercussions. It is one of the main factors that contribute to producing dependency and disability in older people and, although its prevalence and incidence increase exponentially with age, it is not part of normal aging. Despite the enormous burden that dementia poses, it remains an underdiagnosed disorder. Latin America has great sociocultural diversity and further studies are necessary to identify people with dementia.

**Objectives:** Identify the prevalence of dementia in the region, provide knowledge to the population and health professionals and be able to make an early diagnosis.

**Results:** More than 55 million people live with dementia in the world, (68% of patients reside in low- and middle-income countries). A good practice guide for the management of dementia in Latin America and the MoCA test adapted to our environment (Argentine version) to screen for mild cognitive impairment in the population are presented.

**Conclusions:** Promoting the use of harmonized methodologies to address dementia can contribute to generating direct actions aimed at reducing the risk of dementia and leading to healthier lives for people with dementia and their families.

### **HEALTHY AGEING: GROUP DEVICE WITH ELDERLY PEOPLE**

We are going through the decade of healthy aging which, according to the WHO, attempts to promote and maintain functional capacity, allowing well-being in older people. Old age is heterogeneous, it is a complex process that manifests itself in different facets, such as physiological, emotional, economic and interpersonal, which influence functioning and social well-being. Active ageing is a strategic tool to face the problem mentioned.

**Objective:** The Neurology and Social Services proposed forming a group with older people, within the hospital for prevention. It is intended for participants to enable the promotion of their rights and prioritize accompaniment focused on the individual, from an interdisciplinary perspective.

**Methods:** The Group is called Conociendo-Nos, for people over 60 years of age, which is carried out in a hospital, with an open call for two hours per week. It consists of the participation of professionals who, using different strategies, address issues related to comprehensive health, promoting exchange, and learning about the group.

**Results:** The participation of older people in this type of activity has grown throughout these years, with minimal dropout. This contributes to keeping them physically, mentally and socially active, preserving functional capacity in ageing and promoting the generation of links between participants and the health system.

**Conclusion:** Although some older people have little experience participating in group activities, this space helps their inclusion from a gerontological perspective, promoting healthy ageing.

**Keywords:** Healthy aging. Workshops for older people. Group device. Interdisciplinary work

## **Free/Oral Communication:**

### **FC1: Psychosocial Stressors and their Association with Brain Aging**

**Authors:** Francisca S Rodriguez, Hans J Grabe, Stefan Frenzel, Johanna Klinger-König, Robin Bülow, Henry Völzke, Wolfgang Hoffmann

**Introduction:** Recently researchers started investigating brain aging and what factors can influence the way our brains age. As it is unclear at this point whether psychosocial stressor influence brain aging, the aim of the study was to investigate the association between psychosocial stress and brain aging.

**Methods:** Data from the German population-based cohort Study of Health in Pomerania (N = 991; age range 20–78 years) were used to calculate a total psychosocial stress score by combining sub-scores from five domains: stress related to the living situation, the occupational situation, the social situation, danger experiences, and emotions. Associations with brain aging, indicated by an MRI-derived score quantifying age-related brain atrophy, were estimated by using regression models adjusted for age, gender, education, diabetes, problematic alcohol consumption, smoking, and hypertension.

**Results:** High emotional stress came with a relative risk of 1.21 (CI95% = 1.04 – 1.41) for advanced brain aging in fully adjusted models. Mental health symptoms additionally influenced brain aging, as statistically significant interactions between emotional stress and mental health symptoms on advanced brain aging indicate.

**Discussion:** Among the psychosocial stressors that we investigated; emotional stress seems to be relevant regarding brain aging. More research is needed to explore the potential pathways.

## **FC2: Differences in white matter hyperintensities in socioeconomically deprived groups: results of the population-based LIFE Adult Study**

**Authors:** Francisca S. Rodriguez & the LIFE Study group

**Introduction:** Previous studies have shown that people with low socioeconomic status have more white matter hyperintensities (WMH) when they get older. In this study, we wanted to analyze to what extent education and income explain differences in WMH. Further, we wanted to identify lifestyle risk factors that are associated with WMH among people with low and high education or income.

**Methods:** A total of  $n = 1,185$  dementia-free participants aged 40–80 years from the population-based study of the Leipzig Research Centre for Civilization Diseases (LIFE) in Leipzig, Germany, were analyzed. Information was obtained in standardized interviews. WMH (including the derived Fazekas scores) were assessed using automated segmentation of high-resolution T1-weighted anatomical and fluid-attenuated inversion recovery (FLAIR) MRI.

**Results:** Income and WMH were significantly associated in univariate analyses but did not remain statistically significant after adjusting for age, gender, arterial hypertension, heart disease, and APOE e4 allele. Education was significantly associated with Fazekas scores but not with WMH and not after Bonferroni correction. After combining the lifestyle risk factors in a factor analysis, results from adjusted models indicated only statistically significant associations between higher distress and more WMH as well as between obesity and deeper WMH.

**Discussion:** Differences in WMH between individuals with low and high education or income may be the result from differences in risk factors. Further research needs to explore the potential pathways.

## **FC3: Differential diagnosis of Alzheimer’s disease and mild cognitive impairment based on genotype, tongue cleft, eye movement, age and education analysis: a machine learning model**

**Authors:** Weizhe Zhen, Dantao Peng

**Background:** Alzheimer’s disease, as a major disease that seriously jeopardizes the health and safety of human life, and its association with mild cognitive impairment (MCI) a clear diagnosis is essential for prevention and treatment. In clinical work, there are many patients who reject the option of A $\beta$ -PET because of its expensive price and radiopacity. It is well known that the onset of Alzheimer’s disease is closely related to ApoE genotype, age, and education, and the eye movements of patients with Alzheimer’s disease also differ significantly from those of patients with mild cognitive impairment and the normal population. And we found in our clinic that many patients with Alzheimer’s disease develop significant tongue fissures. Based on this, we developed a machine learning tool based on the combined analysis of genotype, tongue cracking, eye movements, age, and education to help patients definitively diagnose either MCI or Alzheimer’s disease.

**Methods:** We recruited 22 patients with subjective cognitive decline, 11 with Alzheimer's disease and 11 with MCI, based on the results of neuropsychological scales assessed in the clinic (MMSE, MoCA, etc.) and the exclusion of other causes of dementia such as vascular dementia. We collected blood samples, tongue image and eye movement data and their basic information from the patients, and we measured and calculated the ratio of the longest tongue crack to the upper lingual segment where the crack was located. We built a new machine learning tool for diagnosing Alzheimer's disease and MCI based on the combined analysis of genotype, tongue cracking, eye movements, age and education using Rstudio software with support vector machines (SVM) and used Rstudio to fill in missing values due to random factors.

**Results:** Our machine learning model for diagnosing Alzheimer's disease and MCI based on genotype, tongue cleft, eye movement, age, and education analysis had an AUC value of 0.875, which was significantly better than the traditional machine learning model without tongue cracking analysis (AUC value of 0.708).

**Conclusion:** The machine learning tool we developed for the diagnosis of Alzheimer's disease and MCI has excellent performance in differentiating between Alzheimer's disease and MCI and possesses a greater potential value for assisting in clinical diagnosis in the future.

#### **FC4: AI Implementation in Online SAGE Test**

**Author:** Ksenia Safronova, Marina Pavlenko, Natalya Rusakova

**Objective:** To evaluate the impact of AI-technology implementation into the algorithm for assessing completed tasks of the online SAGE test to identify primary cognitive changes.

In order to raise awareness among Russians about dementia and early diagnosis to reduce the risk of occurrence and development of the syndrome, the Nodementia.net project improved the online SAGE test as a convenient self-testing tool for cognitive changes. The visual-constructive and executive skills tasks in SAGE-testing required enhancement of the evaluation algorithm by the AI implementation. AI-technology is designed to highly accurately evaluate human drawings against given criteria and assign scores that correspond to the user's cognitive status.

**Methods:** In the process of improving the test, project experts explored and compared drawing evaluation services, but none satisfied the criteria. In order to create a fundamentally new AI model, experts analyzed 10,000 pictures and prepared algorithms to train the experimental AI model. As a result, the project specialists created AI model that evaluates pictures with 80% accuracy and implemented it into online test on the Nodementia.net website.

**Results:** To train the fundamentally new AI model, experts analyzed more than 10,000 different images, which helped to form the evaluation logic, taking into account the shape of the picture, color, line curvature, accuracy of image repetition and more than 100 other factors. Currently, the AI model correctly evaluates about 80% of images; the next step is 95%. We have improved the mechanism for assessing tasks, reduced biases and increased the amount of users.

**Conclusion:** To improve testing algorithms and increase the accuracy of online SAGE test results, we integrated pattern recognition technology based on a self-learning AI model. We used more than 10,000 different images for initial training, based on which the AI generated more than 100 evaluation criteria. Now the AI is expanding its



library of “knowledge” and thereby honing its assessment skills, becoming an integral part of our unique online test.

**Key words:** AI implementation; online SAGE test; dementia; Alzheimer’s disease

### **FC5: Predicting adherence to psychotherapy with mHealth data using deep learning**

**Authors:** Samprit Banerjee, Soohyun Kim, Emily Carter, Jialin Wu, Younghoon Kim, Yiyuan Wu, Hongzhe Zhang, Nili Solomonov, Faith Gunning, Dimitris Kiosses, Jo Anne Sirey, Tanzeem Choudhury, George Alexopoulos

**Objective:** Effectiveness of psychotherapy depends on patients’ adherence to between-session homework (HW) to practice therapeutic skills. mHealth apps can offer continuing reminders, although frequent reminders overwhelm or burden patients and therefore are ineffective. Predicting likelihood of completing daily HW and sending contextual reminders has the potential to improve HW adherence and therefore improve symptoms.

**Methods:** Depressed older participants (N = 51) undergoing psychotherapy provided daily active ratings on mood, anhedonia, stress and pain via an mHealth app. Data on activity, mobilization, sociability and sleep passively were also recorded via device sensors (e.g., microphone, accelerometer, GPS etc.). Using active and passive mHealth data, we developed predictive models of daily home-work completion status using a naïve semi-supervised deep learning algorithm. Prediction accuracy was determined via time-dependent cross-validation.

**Results:** Study participants had a mean (SD) age of 71.4 (7.76) years, mean (SD) of 14.9 (2.93) years of education, mean (SD) BIS/BAS total of 22.6 (3.36), mean (SD) MADRS total score of 20.4 (6.04) and 88.2% were of female gender, 29.4% were single, 83.8% were of non-Hispanic ethnicity, 58.8% belonged to Caucasian race and 38.2% practiced Catholic religion. With 4700 person-days HW completion response, our models show an AUC of 84.7% (sensitivity = 76.2%; specificity = 80%) estimated by cross-validation.

**Conclusion:** This paper demonstrates the feasibility of predicting adherence to psychotherapy in depressed older adults using actively and passively collected mHealth data. Digital interventions based on such predictive models can potentially increase adherence to psychotherapy and thereby improve its effectiveness without increasing the user notification burden.

**Keywords:** mHealth, artificial intelligence, psychotherapy adherence

### **FC6: Impact of work activity on cognitive functioning in older adults**

**Authors:** Priscila V. Elliott, María G. Rodríguez Paz, Emilia Arnez Heine, Alejandro N. Rivera, Florencia Albornoz, Laura Rubio, Cristina G. Dumitrache

**Objective:** The aim of this study was to analyze the impact of maintaining professional activity on cognitive functioning at advanced ages.

**Methods:** The sample comprised 131 people aged 60 years-old and older (M = 68,15 years) of whom 41 were still working (30 women and 11 men, Mage = 65.24), and 89 retired (74 women and 15 men Mage = 69.48). To assess participants’ cognitive functioning the following instruments were used: Rey-Osterrieth Complex Figure Test, Digit Span Test, Trail Making Test (TMT), Verbal Fluency Test and Boston Naming Test (Short Form). Since age

differences among participants of the two groups were found an ANCOVA test was used, and age was included as a covariable.

**Results:** Statistically significant differences were found between the two groups in the Part A of TMT ( $F = 7.383$ ,  $p < 0.05$ ) and the Boston Naming Test (Short Form) ( $F = 3.495$ ,  $p < 0.05$ ). Compared with retired participants those who were still active had better scores on both measures.

**Conclusion:** Work-related activity in old age has a positive influence on cognitive functioning and can contribute to older people's cognitive reserve and to maintaining better attention, naming or word retrieval performance. Thus, in order to maintain good cognitive functioning, when older adults retire, they may need to substitute work with stimulating and challenging activities.

### **FC7: Effects of a multidomain cognitive stimulation program in older adults**

**Authors:** Priscila Victoria Elliott, María Gabriela Rodríguez Paz, Emilia Andrea Arnez Heine, Alejandro Nicolás Rivera, Florencia Albornoz, Laura Rubio Rubio, Cristina G. Dumitrache

**Objective:** The aim of this study was to ascertain the influence of a six-month multidomain stimulation program on cognitive functioning.

**Methods:** The sample comprised 25 older adults 60 years-old and older ( $M_{age} = 66.08$  years), of whom 96% were women and 54% had high education. The intervention program had a duration of six months and was implemented in a group format in one-hour sessions on a weekly basis. Lessons on neuroprotective factors, training in practical compensatory strategies to improve daily performance, cognitive training exercises and recreational cognitive stimulation activities were included. In order to analyze participants' cognitive functioning the following instruments were used: Mini-Mental State Examination, Rey Complex Figure Test, Digit Span Test, Stroop Test, Trail Making Test (Part A and Part B), Verbal Fluency Test, Boston Naming Test (Short Form) and Neuropsi Verbal Memory Subtest. Wilcoxon test was performed to test the impact of the intervention program on participants cognitive functioning.

**Results:** Statistically significant differences were found after the six-month intervention in verbal memory encoding ( $W = -2.772$ ,  $p < 0.05$ ), in spontaneous verbal memory retrieval (free recall) ( $W = -3.456$ ,  $p < 0.001$ ), in verbal recognition memory ( $W = -3.184$ ,  $p < 0.001$ ), in spontaneous visual memory retrieval ( $W = -2.056$ ,  $p < 0.05$ ), and in naming by visual confrontation ( $W = -2.521$ ,  $p < 0.05$ ). In all cases, participants increased their scores after taking part in multicomponent a six-month multidomain stimulation program

**Conclusion:** One of the biggest concerns among older people is the loss of cognitive abilities that may occur with ageing. Cognitive stimulation programs, if sufficiently comprehensive, can be a good tool to maintain and improve cognitive functions as we age.

### **FC8: Specific protocol for individual Psychotherapy based on Cognitive Behavioral Therapy for people with Mild Cognitive Impairment (MCI) and Mild Dementia (MDI)**

**Authors:** Paula Soledad Brovia, Sr.

**Objective:** To discuss a proposal for a cognitive behavioral psychotherapy protocol for people with Mild Cognitive Impairment and Mild Behavioral Impairment framed within psychosocial treatments.

**Method:** The lack of a specific psychotherapy protocol in Latin America for the selected population will be presented, as well as the need to complement cognitive stimulation treatment with cognitive behavioral psychotherapy for the corresponding cases. The literature explored in this theoretical framework will be addressed and the steps to follow in the aforementioned project will be proposed.

**Results:** Currently, there are two main intervention pathways for MCI and DM, known as pharmacological and psychosocial treatments. The latter become indispensable when considering them as multicausal and multidimensional pathologies and psychological treatments are part of them (Berriel and Fernández, 2007). Psychotherapy in particular allows patients to deal with behavioral changes and the experience related to the disease in a more functional way in the long term (Linnemann and Fellgiebel, 2017). However, there are few studies that address evidence-based psychotherapeutic interventions. Even in Latin America, there are no reports of protocols that can be generalized for application in clinical practice. Faced with this absence, the project of developing a specific cognitive behavioral psychotherapy protocol for this population is framed.

**Conclusion:** There are few studies that address evidence-based psychotherapeutic interventions, and there are not even reports of generalizable protocols in Latin America. In light of this absence, a project is underway to develop a specific cognitive behavioral psychotherapy protocol for this population based on the limited evidence, extensive clinical experience and adapted to the preferences and needs of the local population.

### **FC9: Investigating the Association between Retirement Dissatisfaction and Suicide Ideation in Middle-Aged and Older Men Facing the Transition to Retirement**

**Authors:** Marnin J. Heisel, PhD., C.Psych.<sup>1</sup>, Salman Ali<sup>1</sup>, and the Meaning-Centered Men's Group Project Team

1. The University of Western Ontario

**Background:** The older adult population is growing in many countries worldwide, consistent with the aging of the vast baby-boom cohort. Older men have high rates of suicide in their post-retirement years, necessitating research investigating mental health promotion and suicide prevention in the peri-retirement period.

**Methods:** Secondary analyses were conducted of pre-group data from 83 participants in a study of Meaning-Centered Men's Groups (MCMG; Heisel et al, 2020), an upstream community-based psychological intervention group for men over 55 facing the transition to retirement. Eligible participants met with investigators in an academic health sciences centre and completed measures of retirement satisfaction (RS), suicide ideation, and positive (e.g., psychological well-being, perceived social support, and life satisfaction) and negative psychological factors (e.g., depression, hopelessness, loneliness, and anxiety) prior to the start of a 12-week course of MCMG. Associations were investigated among measures of retirement satisfaction and the positive and negative psychological factors. RS was predicted to be positively associated with the positive psychological variables, and negatively associated with the negative psychological variables. We specifically predicted that RS would be negatively associated with suicide ideation, and that this association would be mediated by depressive symptom severity.

**Results:** Measures of global RS were significantly correlated with one another and with measures of positive and negative psychological factors in the expected direction. Retirement dissatisfaction was significantly associated with suicide ideation (Geriatric Suicide Ideation Scale or GSIS), and particularly so with items assessing a perceived Loss of Personal and Social Worth. The association between RS and suicide ideation was significantly mediated by depressive symptom severity (Geriatric Depression Scale).

**Conclusions:** Retirement satisfaction is closely associated with self-reported mental health and well-being variables among middle-aged and older men facing the transition to retirement. Severe dissatisfaction with retirement may be a suicide risk indicator, necessitating investigation and potential intervention. These and other findings will be discussed in the context of the importance of meaningful engagement in one's post-employment years.

**Key Words:** suicide ideation; retirement satisfaction; upstream interventions; meaning in life

### **FC10: Late Career Transitions for Physicians**

**Author:** Robert Madan

#### **Objectives:**

1. List barriers and facilitators to physician retirement
2. Reflect on their personal thoughts and feelings about retirement
3. Describe personal steps or actions that need to be done in preparation

**Background:** Ernest Hemingway described the word *retirement* as “the ugliest word in the language.” Physicians dedicate much of their time, energy and career towards training and patient care, often without sufficient focus on financial planning, late-career activities, and what retirement will require of them. There are significant competing tensions that create challenges in physician retirement.

**Methods:** A literature review was conducted to determine the enablers and barriers to physician retirement. Participants will reflect on how this applies to their own context and will have an opportunity to begin considering a late-career transition plan.

**Results:** Earlier retirement is associated with mental and physical stressors, and later retirement is associated with intuitional flexibility, and a feeling of lack of purpose and primary identity. Barriers to retirement include insufficient financial planning, rigid organizational structures, and an identity that is mostly based on being a physician. Facilitators include good health, opportunities to teach, adequate financial planning, succession planning, and the development of interests outside of medicine.

**Conclusions:** The training and practice of medicine often requires a near-total commitment at expense of personal life and late-career planning. There are clear enablers and barriers to physician retirement. Recommendations include institutional retirement planning, guidance around financial planning for physicians throughout their careers, and the creation of post- retirement opportunities that maintain institutional ties. Late-career mentoring and peer support may be of value.

## **FC11: The Baycrest Quick-Response Caregiver Tool: Preliminary Results in the Long-Term Care Setting**

**Authors:** Robert Madan, Anna Berall, Jon Parr Vijinski, Ken Schwartz

### **Objective:**

1. Describe the Baycrest Quick-Response Caregiver Tool
2. Describe the feasibility and utility of the tool in the long-term care context

**Background:** Neuropsychiatric symptoms of dementia (NPS) are common and result in poor outcomes such as caregiver burnout, poor quality of life, and elevated health care costs. The Baycrest Quick-Response Caregiver Tool TM (BQRCT) assists the caregiver to manage NPS in real time. Previously, the tool was studied in community-based family caregivers with positive results in terms of its feasibility and ease of use. The current study adapted the training module for health care professionals in the long-term care (LTC) context and assessed its utility and feasibility using a mixed-methods approach.

**Methods:** The online training module involves a video about neuropsychiatric symptoms of dementia and a general overview of the tool, and 3 videos involving actors to demonstrate how LTC staff could use the tool in typical scenarios. A short instruction manual and pocket guide are included in the tool. Participants completed a pre-survey, the training module, and post-surveys immediately following the training, and after 4 weeks. Survey data included demographics, face-valid Likert questions for program impact, and feasibility questions.

**Results:** Twenty-four staff participants were recruited from LTC homes. The average number of years working with persons with dementia was 7.41. The BQRCT was found to be “moderately” to “extremely” useful in 87% of participants. 79% of participants would recommend the tool to other staff in LTC. At 4 weeks post intervention, 79% of participants reported that their interactions with residents improved as a result of viewing the BQRCT and 54% responded “much” or “very much” regarding learning effective steps to respond to residents’ symptoms. 83% of participants reported that the training module helped them implement the steps in the BQRCT. The qualitative analysis revealed that the tool was educational, informative, and reflected realistic scenarios. Participants found the tool to be practical, understandable, and easy to use. The tool allowed LTC staff to develop empathy through self-reflection.

**Conclusions:** The BQRCT was found to be feasible and of utility for the majority of participants in the LTC setting. The training module was found to be easy to use and fostered empathy and self-reflection in formal caregivers.

## **FC12: Dementia, Communication and Emotions: Twinning Human Expertise and Artificial Intelligence Approaches for the Wellbeing of Persons Living with Dementia**

**Authors:** Ana Ines Ansaldo, PhD, Santiago Hidalgo, Barbara Delacour, Nizar Bouguila, Raed El- Aoun, Omar Graja, Ahmed Rabei

**Introduction:** Deprivation of social contact with relevant others precipitates cognitive and physical decline in long-term care (LTC) residents, increasing the risk of behavioral and psychological symptoms of dementia (BPSD), both factors having a negative impact on the resident, the caregiver, and the quality of care. Both caregivers and health professionals point to the imperative need to develop new approaches and communication tools to maintain social engagement in LTC residents with neurocognitive disorders. Studies indicate that residents in LTC facilities

spend an average of 4 hours a day watching screens [3]. The effects of this exposure on the nature of communication exchanges between persons with dementia (hereafter “residents”) displaying BPSD are, however, little known. Among healthy populations, research in audiovisual content (henceforward “films”) shows that certain parameters (rhythm, type of content, sounds) can affect emotional reactions and associated verbalizations [4]. These effects have been little studied in the context of neurocognitive disorders, but the results of our previous studies indicate that emotional content acts as a trigger for communication between residents in LTC and their caregivers, thus favoring social engagement [2-7]. Previous work with the COMPAs tablet-based application shows that personalized and positive emotional screen content (i.e. personal photographs, videos, preferred music) supports person-centered communication between residents in LTC and their caregivers, characterized by an increase in social engagement both expressed through verbal and non-verbal exchanges, and reduction in agitation and apathy behaviors in residents [1-2-5], while improving quality of life in LTC residents and reducing the burden in caregivers [2]. Aims: to detect markers of social engagement and well-being in residents in LTC, and their caregivers. More precisely, to identify film verbal (words, interjections, utterances, etc.), and nonverbal manifestations (facial expressions, hand, and body movements) of social engagement resulting from exposure to screen content. Secondly, to identify film parameters that effectively generate positive emotions, specifically: calmness (as opposed to restlessness), engagement (as opposed to apathy) and empathy (subjective to emotional communication, as opposed to indifference), joy (as opposed to sadness), and their links with communication verbal and nonverbal communication markers of social engagement.

**Methodology:** Sixteen participants living in LTC and their respective personal caregivers participating in a minimum of 3 weekly -15 minute-co-viewing/ social-engagement sessions (guided by semi-directed interview script), for 8 weeks. Data collection: camera recording + biosensor measures during viewing sessions + emotion reading AI devices. Data analyses: Mixed methods analyses of co-viewing sessions’ recordings by communication and cinema experts; observational analyses of using observational scales and grids determine associations between residents’ reactions and film features. Generative ML models (e.g. HMMs, mixture models), analyze gestures, facial expressions, and physiological signals. Integration of expert observational and ML analyses in group discussions, for detecting new patterns that only become apparent in the integration of these two methodologies, resulting in a unique human-artificial intelligence perspective, for evaluating social and emotional engagement in residents.

**Results:** The evidence indicates that verbal and no verbal expressions of specific positive emotions correlate with engagement of persons with dementia and their caregivers, co-viewing specific screen content, while entailing feelings of wellbeing in both. These preliminary results suggest that frequent and short exposure to personalized screen content supports communication and wellbeing in persons living with dementia and their caregivers.

### **FC13: Therapeutic drug monitoring (TDM) in elderly patients prescribed psychotropic agents**

**Authors:** Georgios Schoretsanitis

**Objective:** Apart from irrational polypharmacy, drug-drug interactions (DDIs) and potentially inappropriate medications for elderly patients, there are numerous challenges referring to psychopharmacological treatment in this patient subgroup prescribed psychotropic agents. Specifically, pharmacokinetics and pharmacodynamics essentially differ in elderly patients, complicating medication selection and dosing.

**Methods:** Pharmacokinetics involves absorption, distribution, metabolism, and elimination of the medication. Elderly patients often present distinct patterns of medication absorption as well as reduced elimination (due to decreased kidney function). DDIs are another major confounder of medication metabolism. This is particularly

common in elderly patients, as one out of two elderly patients with mental disorders receive polypharmacy which in turn requires careful dose adjustment. Medication adherence is an additional challenge in patients with mental disorders, further complicating pharmacotherapy.

**Results** We discuss the benefits of therapeutic drug monitoring (TDM), i.e. the regular measuring of drug concentrations in plasma of patients prescribed psychotropic agents. TDM is a valuable personalized treatment tool; specifically, it allows the determination of the minimum effective dosage also improving safety outcomes. Basic TDM principles, such as steady-state, trough levels and therapeutic reference ranges in the context of elderly patients' pharmacological treatment will be discussed.

**Discussion:** The use of TDM is of established clinical value in particularly vulnerable patient subgroups such as elderly patients. Summarizing practical recommendations for TDM in clinical routine we aim to enhance its use ultimately enabling an improvement of treatment effectiveness and safety outcomes in elderly patients prescribed psychotropic agents.

**Keywords** Therapeutic drug monitoring; personalized medicine; polypharmacy; pharmacotherapy; medications

#### **FC14: Patient-centered approach to prescribing atypical antipsychotics in management of expressions in advanced neurocognitive disorders.**

**Authors:** Atul Sunny Luthra, MD, MSc, FRCPC

**Introduction:** The diagnosis of expressions in advanced neurocognitive disorders (ANCD) is one of exclusion. All medical, psychiatric, physiological and environmental determinants have to rule out prior to labeling a cohort of symptoms as expressions in ANCD. The prevalence of expressions is the highest in ANCD, when clinical assessments become unreliable and existing psychometric tools have no established reliability and validity for their use in ANCD. Ascribing 'meaning' to expressions is the only next forward in assessing expressions.

**Objectives:** The LuBAIR™ Paradigm is a novel approach to ascribe 'meaning' to behavioral expressions in ANCD. The 'meaning' ascribed to expressions was used as a guide to attempt de-prescribing of atypical antipsychotics (AAP).

**Methods:** The LuBAIR™ Inventory was filled on two occasions. The data collected on the second occasion, in the successful and failed de-prescribed groups, were compared in this retrospective study. MANOVA, Chi-Square paired *t*-test statistical analyses were used to detect the differences in the behavioral categories between the two cohorts. Cohen *d* was used to measure effect size.

**Results:** Patients who did not have Misidentification and Goal-Directed Expressions were more likely to successfully de-prescribe:  $\chi^2(1, N = 40) = 29.119, p < 0.0001$  and  $\chi^2(1, N = 40) = 32.374, p < 0.0001$ , respectively. Alternatively, the same behavioral categories were more likely to be present in patients who failed de-prescribing: MANOVA and paired *t*-test ( $p < 0.0001$ ).

**Conclusion:** Atypical antipsychotics, in their role as an antipsychotic and mood stabilizer, respectively, may be used to manage Misidentification and Goal-Directed Expressions, respectively. Vocal expressions were identified as a heterogeneous group with a few sub-types responding to AAP. All other expressions in the LuBAIR™ Inventory do not justify the use of AAP in their management.

### **FC15: Risk Assessment and Increasing Safety in Dementia – RAISe- Dementia study**

**Authors:** Juanita Hoe, Sergi Costafreda, Monica Manela, Lucy Webster, Elena Profyri, Frank Arrojo, Helen Souris, Nomi Weberloff, Gianluca Biao, Emily van de Pol, Lori Bourke, Gill Livingston

**Objective:** UK policy priority is to support people with dementia (PLwD) to live at home for longer. Initial clinical assessment involves evaluating and managing risk to enable PLwD to live safely and well at home. Risk assessment scales are needed to identify, manage and reduce risk within contemporary dementia practice. The “Islington Dementia Navigator Risk Assessment Tool” (IDNRAT) is used by specialist and non-specialist staff to stratify the level of risk for PLwD and inform a risk management plan and the frequency of follow-up. We assessed whether IDNRAT enables risk detection and whether the risk intervention derived from it is implemented and improves the safety of people living at home with dementia.

**Methods:** A mixed methods study to evaluate IDNRAT’s validity, and the feasibility and acceptability of the resulting risk management plan. We investigated the use of the IDNRAT to: (i) detect risk (concurrent validity) and measure the reliability of the tool; (ii) contribute to risk reduction (primary outcome was numbers of decisions implemented); (iii) explore patients’ and carers’ experience of risk stratification.

**Results:** We found risk stratification scores (n = 119) derived from IDNRAT and compared with gold standard clinical risk assessments showed concordance between clinicians’ ratings. Joint Dementia navigator and researcher interviews (n = 19) showed consistency between the different assessor scores demonstrating IDNRAT has good reliability. Care-plan data showed most participants (n = 275) scored in the low-risk band of IDNRAT (78.9%) at baseline assessment and risk severity ratings (red/amber/green) reduced over the 6–12-month time period. PLwD (n = 19) and family carers (n = 17) had differing perceptions about risk and the PLwD’s susceptibility to risk. Overall, participants found the risk assessment acceptable, were able to identify risks and felt included in decision-making processes.

**Conclusion:** We found that the IDNRAT used by non-specialist practitioners (dementia navigators) does enable people with dementia to live safely at home in terms of risk- identification, implemented risk enablement decisions and acceptability. IDNRAT is a valid risk assessment tool, which offers a tailored approach to the management of risk, and over 80% of care-plan decisions were implemented. This is consistent with best practice and the tool has potential for wider use.

### **FC16: Management of Dementia: Comparison of 11 Asian Countries (Wave 1 ~ Wave 3)**

**Authors:** Guk-Hee Suh, MD, PhD

**Background:** Dementia is rapidly increasing in Asia.

**Aim:** There has been an Asian forum to ascertain country-specific patterns of management of dementia and to investigate country-specific characteristics.

**Method:** In 2009, 11 dementia experts on Alzheimer’s from Korea, Japan, mainland China, Hong Kong China, Taiwan, Singapore, Philippines, Malaysia, Indonesia, Thailand, and India were invited to participate in the survey. The 33-item questionnaire were answered; awareness of dementia, characteristics of patients with memory problems, referral, diagnosis of MCI and dementia, diagnostic tools including the high-technology device,



pharmacological treatment of MCI and dementia, current issues on AD, barriers and challenges in the management of dementia. Since then, 3 surveys have been completed in 2009, 2012, and 2024.

**Findings:** New revised research diagnostic criteria for AD needing spinal tapping and brain imaging might not be adopted for clinical practice in memory clinics in Asia. Brain imaging studies like CT, MRI, SPECT, or PET are applied for more than 75% of patients as a usual part of the diagnostic workup in Korea, Japan, mainland China, Taiwan, Singapore, Indonesia, and Thailand, while 51 ~ 75% in Philippines and 25 ~ 50% in Hong Kong, Malaysia, and India. Proportion of patients who continue pharmacological treatment after the initial diagnosis of dementia varies country by country varies. Most countries endorsed all approved anti- dementia drugs, but some others approved a few of them (i.e., only donepezil present in Japan, galantamine absent in China, memantine absent in Indonesia, rivastigmine absent in Thailand. Cholinesterase inhibitors are prescribed in more than 90% of patients in 6 countries (i.e. Korea, Japan, Taiwan, Singapore, Philippines, Malaysia). In other 5 countries, medications like memantine, huperzine, ginkgo biloba, vitamin E, herb medicine or others are being more frequently prescribed than in above 6 countries.

**Conclusion:** Well-organized and planned governmental policies about dementia, in collaboration with dementia experts and their organizations, will effectively reduce burden of dementia in Asia, where an epidemic tide of dementia is approaching.

### **FC17: Dementia Prevention; Effect of Comorbid Diseases on Cognitive Decline**

**Author:** Istvan J.E. Boksay, M.D., Ph.D.

**Introduction:** Patients with mild to moderate dementia, progress to end stage dementia faster if they have more medical conditions (MCs) at their baseline evaluation, than those who have less MCs. Other recent studies have noted that the cognitive function of elderly people with subjective cognitive impairment (SCI) is five times more likely to further decline than those without SCI.

**Objective:** Our aim was to determine; 1) whether the prevalence of medical comorbidities contribute to more rapid decline in cognitive functioning, and 2) whether the prevalence of medical conditions and the use of medications are different in patients with and without SCI.

**Methods:** Using rigorous inclusion and exclusion criteria, we enrolled 86 elderly people with normal cognition in a retrospective cross-sectional study.

**Results:** Our preliminary evaluation shows that medical conditions markedly influence the decline of cognitive functioning, even in the elderly with normal baseline cognitive function, and in the elderly with SCI have significantly more MCs and take more medications than those without SCI.

**Conclusion:** Further studies are needed to evaluate the change in the number of medications, frequency of cardiovascular diseases, history of surgeries and episodes or occurrences of depression between the evaluations.

## **FC18: Timing and Duration of Adverse Events During Treatment of Agitation in Alzheimer's Dementia with Brexpiprazole: Pooled Results From Three Phase 3 Trials**

**Authors:** Malaak Brubaker<sup>1</sup>, Sanjeda R Chumki<sup>1</sup>, Anja Farovik<sup>2</sup>, Anton M Palma<sup>1</sup>, David Wang<sup>3</sup>, Zhen Zhang<sup>1</sup>, Charles Montano<sup>4</sup>, Anton P Porsteinsson<sup>5</sup>, Pedro Such<sup>2</sup>

1. Otsuka Pharmaceutical Development & Commercialization Inc., Princeton, NJ, USA
2. H. Lundbeck A/S, Valby, Denmark
3. Lundbeck LLC, Deerfield, IL, USA
4. Connecticut Clinical Research, Cromwell, CT, USA
5. University of Rochester Alzheimer's Disease Care, Research and Education Program (AD-CARE), Rochester, NY, USA

**Objective:** Antipsychotic use among patients with Alzheimer's dementia can pose safety concerns, including accidents/injuries, cardiovascular events, extrapyramidal symptoms, and somnolence/sedation. In the US, brexpiprazole is approved for the treatment of agitation associated with dementia due to Alzheimer's disease. This post hoc analysis aimed to evaluate the timing and duration of treatment-emergent adverse events (TEAEs) in three randomized clinical trials of brexpiprazole.

**Methods:** Data were included from three Phase 3, 12-week, randomized, double-blind, placebo-controlled trials of brexpiprazole in patients with agitation associated with Alzheimer's dementia (ClinicalTrials.gov identifiers: NCT01862640, NCT01922258, NCT03548584). Data for all patients who received  $\geq 1$  dose of trial medication were pooled by randomized dose group: brexpiprazole 0.5 or 1 mg/day (fixed-dose), brexpiprazole 2 or 3 mg/day (fixed-dose) (FDA-approved recommended-to-maximum dose), brexpiprazole 0.5–2 mg/day (flexible-dose), and placebo. Time-to-event analyses were performed to first occurrence of any TEAE, any serious TEAE, discontinuation due to AE, and TEAEs of interest, separately, and presented using descriptive statistics and Kaplan–Meier methodology. The duration of all TEAEs in each category was also determined.

**Results:** The pooled sample comprised 1,043 patients. Median time to first TEAE was 24 days with brexpiprazole 0.5 or 1 mg/day (fixed-dose), 32 days with brexpiprazole 2 or 3 mg/day (fixed-dose), 28 days with brexpiprazole 0.5–2 mg/day (flexible-dose), and 28 days with placebo. Median duration of all TEAEs was 7 days, 6 days, 8 days, and 4 days (respectively). Median time to (and incidence of) discontinuation due to AEs was 45 days (8.9%) with brexpiprazole 0.5 or 1 mg/day, 46.5 days (4.9%) with brexpiprazole 2 or 3 mg/day, 30 days (6.8%) with brexpiprazole 0.5–2 mg/day, and 30 days (3.4%) with placebo. The incidence of serious TEAEs and TEAEs of interest is presented in the Table.

**Conclusion:** In patients with agitation in Alzheimer's dementia, time to first occurrence of any TEAE was similar between brexpiprazole 2 or 3 mg/day (FDA-approved recommended-to-maximum dose) and placebo, and time to discontinuation due to AEs was longer with brexpiprazole 2 or 3 mg/day than placebo. Overall, no unexpected safety concerns were revealed by this analysis.

### **FC19: Emergent neuropsychiatric symptoms and sleep disturbances among dementia-risk older adults with depressive symptoms in nursing homes: a network analysis**

**Authors:** Rong Lin<sup>1</sup>, Bingjie Wei<sup>1</sup>, Hong Li<sup>1</sup>

1. Fujian Medical University, Fuzhou, Fujian Province, China, 350122

**Objective:** The aim of this study was to identify core and bridge symptoms between emergent neuropsychiatric symptoms and sleep disturbance in dementia-risk older adults with depressive symptoms in nursing homes using network analysis, and to further compare the structural differences in symptom networks between subthreshold depressive and depressive groups.

**Methods:** A total of 853 older adults in nursing homes participated in this study. We used the Mild Behavioral Impairment (MBI) and the Pittsburgh Sleep Quality Index (PSQI) to assess the severity of emergent neuropsychiatric symptoms and sleep disturbances, respectively, and the analyses also generated a network model of the MBI-PSQI in the sample and examined subthreshold depressive and depressive groups' potential differences between network structure and connectivity.

**Results:** The core symptom in the global MBI-PSQI network of older adults with depressive symptoms in nursing homes was "MBI8" (Lack of pleasure experience: 8.340), and the bridge symptom was "PSQI7" (Daytime Dysfunction: 3.894). The edges connecting the nodes "MBI2" (Lost curiosity in usual interests) and "MBI3" (Decreased social initiative) in the global MBI-PSQI network has the strongest weight (0.798). Compared to the global network, for participants in the depression group, "MBI8" (7.647) remains the most core symptom, and "PSQI7" (4.028) serves as a critical bridge symptom between emergent neuropsychiatric symptoms and sleep disturbances. However, in the subthreshold depression group, the MBI-PSQI network structure exhibits distinct characteristics, with "MBI2" (5.563) being revealed as the most significant symptom, closely followed by "MBI8" (5.453). Furthermore, the bridge symptom connecting emergent neuropsychiatric symptoms to sleep disturbances shifts to "PSQI4" (Sleep Efficiency: 1.386). Intriguingly, the strongest edge in both the global network and the subgroup network is MBI2-MBI3.

**Conclusion:** There is an association between emergent neuropsychiatric symptoms and sleep disturbance in dementia-risk older adults with depressive symptoms in nursing homes. In addition, heterogeneity in the network structure of subthreshold depression and depression, with shifts in core and bridge symptoms, providing directions for designing novel and targeted interventions.

### **FC20: Symptom characteristics of neuropsychiatric symptoms in older people with mild behaviour impairment: A latent class analysis**

**Authors:** Yuanjiao Yan, Yanhong Shi, Chenshan Huang, Rong Lin, Hong Li

**Background:** Mild behavioral impairment (MBI) in older people refers to a group of syndromes that are characterized primarily by clusters of neuropsychiatric symptoms without severe cognitive impairment, which is a high-risk population for dementia. Patients often experience a variety of symptoms and exhibit high heterogeneity in symptomatology across different individuals. Classifying the psychotic symptom characteristics of MBI patients aids in the implementation of precise interventions for the next steps.

**Objective:** To explore the symptom characteristics of older people with MBI and to classify them based on their symptoms.

**Methods:** Using a multi-stage sampling method, the MBI-Checklist was employed to investigate symptom characteristics in 255 older people with MBI from 32 nursing homes in Fujian Province. Latent Class Analysis (LCA) was then employed to categorize these individuals based on their symptom profiles.

**Results:** The neuropsychiatric symptoms clusters in older people with MBI often present as a combination of lack of motivation and emotional dysregulation, lack of motivation and impulse control disorders, or emotional dysregulation and impulse control disorders; presentation of a single symptom cluster is relatively less common, accounting for 45.49%. Older people with MBI can be divided into 2 latent classes ( $P < 0.05$ ) based on symptom characteristics. According to the conditional probability of each class, they were named the “high-level group” [211 (82.69%)] and the “low-level group” [44 (17.31%)].

**Discussion:** As individuals with MBI are at high risk for developing dementia, early intervention can effectively delay or reduce the occurrence of dementia. Future interventions should be personalized based on the specific symptom characteristics of this population.

### **FC21: PET imaging of late-life psychosis and mood disorder**

**Authors:** Masaru Mimura

**Summary:** In his 1910 textbook, 8th Edition, “*Mental Illness in Old Age*”, E. Kraepelin stated, “The realm of late-life psychiatric disorders is perhaps the most unclear in the entirety of psychiatry.” More than a century later, it remains challenging to fully understand late-life psychiatric disorders, including late-life depression, late-life bipolar disorder, and late-life delusional states such as late paraphrenia. However, recent years have seen significant advancements. Neuropathological examinations of these late-life psychiatric disorders are gradually uncovering the underlying diseases. In addition, progress in neurofunctional imaging studies using positron emission tomography (PET) is shedding light on their neurological foundations. Traditionally, mood disorders and delusional conditions in the elderly were considered distinct from dementia. Yet, over time, more cases are being observed to progress into some form of dementia or neurodegenerative diseases. These cases are suspected to have diverse neuropathological entities based on the type of abnormal proteins accumulating in the brain, such as amyloidopathy, synucleinopathy, or tauopathy. Among these, we have specifically revealed that tauopathy is a background factor in some cases of late-life mood disorders and late-life delusional states, using Florzolotau tau PET imaging. We have also found that psychiatric symptoms like delusions are related to the degree of accumulation of tau proteins. The involvement of tau pathology in symptom formation in late-life psychosis suggests that disease-modifying drugs targeting tau, which may emerge in the near future, could be effective in treating these individuals.

### **FC22: Apathy: the fourth musketeer in the normal pressure hydrocephalus in older adults**

**Authors:** Federico Carlos Augusto Quaglia, MD

**Objective:** Highlight the presentation of behavioral symptoms in addition to the classic clinical trial in idiopathic normal pressure hydrocephalus in the elderly. Identify apathy as the most prevalent behavioral symptom in normal pressure hydrocephalus (NPH) in the elderly.

**Methods:** A bibliographic review of apathy as a behavioral symptom of NPH is carried out. Likewise, in addition to highlighting apathy as a possible diagnostic marker, the evidence of it as a prognostic marker of therapeutic response is discussed. For this, a review of publications in English and Spanish from the last 10 years was carried out in databases including Cochrane Library, EMBASE, MEDLINE/PubMed, SCOPUS. The MESH terms apathy, Hakims-Adams, idiopathic normal pressure hydrocephalus, chronic hydrocephalus, neuropsychiatric symptoms were used for the search.

**Results:** Sixteen articles were selected that verified the heterogeneity of the diagnostic criteria for apathy for its detection in patients with NPH. Likewise, it is identified that apathy is the most prevalent behavioral alteration with a prevalence of 60% of patients in this condition. Regarding its predictive value as a prognostic marker for shunt surgical treatment, the evidence is not conclusive either to confirm or to rule out the usefulness of apathy.

**Conclusion:** Apathy should be considered as another diagnostic key in NPH. Thus, the classic description of this condition as a motor-cognitive-urinary syndrome must be reconceptualized as a motor-cognitive-behavioral-urinary syndrome.

### **FC23: Clinical and therapeutic challenges in Geriatric Depression and Sleep Apnea Hypopnea Syndrome**

**Authors:** Federico Carlos Augusto Quaglia, MD

**Objective:** Health professionals in our setting rarely ask adequately about sleep disorders beyond insomnia in depressive patients. This presentation aims to review the possible clinical situations between geriatric depression (GD) and sleep apnea and hypopnea syndrome (SAHS) and highlight the clinical impact of their adequate detection and treatment.

**Methods:** Presentation of a sample of 25 older adult patients from the Geriatric Neuropsychiatry Clinic and the Psychogeriatric Section of the Department of Psychiatry of the CEMIC (Buenos Aires, Argentina) with diagnoses of GD and SAHS.

**Results:** Presentation of different groups of patients with possible relationships in which these two entities interact: a) GD as a risk factor for developing SAHS; b) SAHS as a risk factor for developing GD; c) GD and SAHS as comorbidities; d) GD and SAHS as risk factors for morbidity and mortality for multiple diseases; e) SAHS as a cause of pseudo-resistance to antidepressant treatment in GD; e) GD as a cause of pseudo-resistance to SAHS treatment; f) the treatment of GD as a cause of pseudo-resistance to SAHS treatment; g) the treatment of SAHS as “a cause of” and/or “aggravate” of GD.

**Conclusion:** Mental health professionals must actively investigate in their older patients the possible relationships between GD and SAHS in order to ensure the diagnosis and appropriate treatments adapted to such clinical situations.

## **FC24: Characteristics of elder patients seen in a mental health clinic in Cali-Colombia in 2023**

**Authors:** Andrea C. Casas

**Objective:** To identify the characteristics and principals' diagnosis of the older patients of a mental service in order to design the basis of an intervention plan.

**Methods:** Retrospective longitudinal observational study based on a secondary database provided by Mentalitat.

**Results:** On a year 30% of the attention were over 60 years old, 70% of them was women with anxiety disorder, mixed anxiety-depression disorder, and mayor neurocognitive disorder. Almost half of the dementias had not reported etiology despite the repeat attentions.

**Conclusion:** In order to improve the mental state and reduce hospitalization interventions should be focused on women with anxiety or/and depression and brain health to influence the incidence of neurocognitive impairment and the quality of life; emphasizing dementia training for mental health care.

## **FC25: Impact of a co-designed older carer mental and physical health service in Australia: Preliminary results of a pilot study**

**Authors:** Aislinn Lalor, Keith Hill, Sue Slatyer, Christina Bryant, Lisa Licciardi, Voula Bitaxis, Anna Gillard, Sue Wright, Paula Botero, Nathasha Layton, Angel Lee, Belinda Cash, Natasha Brusco, Anjali Khushu, Deborah Oliveira, Elissa Burton, Jacqui Allen

**Objective:** Older people with care needs are often supported by their older care-partners (50+). Over time, the increased demand in care needs can result in the care partner placing their own health needs aside. This study was aimed at establishing and piloting a novel co-designed Carer Health and Wellbeing Service (CHWS) that offers multidisciplinary (social work, psychology, occupational therapy, and physiotherapy) one-to-one support to care partners.

**Methods:** We conducted a pre-post 6-month study design including qualitative and quantitative methods. Consenting individuals attending the CHWS completed five measures pre- and post- their interaction with the CHWS: Carer Support Needs Assessment Tool (CSNAT); Preparedness for Caregiving Scale (PCS); Family Appraisal of Caregiving Questionnaire (FACQ); EuroQoL Five Dimension Five Level Scale (EQ-5D-5L); and Health Economics Survey.

**Results:** Service operation commenced 1 day/week in March 2024 with 16 participants to date. Preliminary pre-service use indicates care partners feel underprepared for the carer role (particularly emotionally and psychologically), experience high levels of guilt when addressing their own care needs and are unsure about how to advocate or navigate the existing support system. Care partners have been coached to identify, prioritize, and address their current health and wellbeing needs. Additional findings regarding the implementation of the CHWS will be reported in this presentation.

**Conclusion:** The preliminary sample presents several emotional and psychological needs that need addressing. These will inform the type of support services to be provided as part of the CHWS, which will also be presented at the conference.

## **FC26: Discrimination and Stigma Scale Ultra Short for People Living with Dementia (DISCUS-Dementia): Development and Psychometric Validation**

**Authors:** Jem Bhatt, Elaine Brohan, Drew Blasco, Deborah Oliveira, Ioannis Bakolis, Adelina Comas-Herrera, Francesco D'Amico, Nicolas Farina, Martin Knapp, Madeleine Stevens, Graham Thornicroft, Emma Wilson, Maximilian Salcher-Konrad, Lawrence Y. Yang, Sara Evans-Lacko

**Objective:** This work was aimed at characterizing the experiences of discrimination, and report initial psychometric properties of a new tool to capture these experiences, among a global sample of people living with dementia.

**Method:** Data from 704 people living with dementia who took part in a global survey from 33 different countries and territories were analysed. Psychometric properties were examined, including internal consistency and construct validity.

**Results:** A total of 83% of participants reported discrimination in one or more areas of life, and this was similar across WHO Regions. The exploratory factor analysis factor loadings and scree plot supported a unidimensional structure for the Discrimination and Stigma Scale Ultra Short for People Living with Dementia (DISCUS-Dementia). The instrument demonstrated excellent internal consistency, with most of the construct validity hypotheses being confirmed and qualitative responses demonstrating face validity.

**Conclusion:** The DISCUS-Dementia performs well with a global sample of people living with dementia. This scale can be integrated into large-scale studies to understand factors associated with stigma and discrimination. It can also provide an opportunity for a structured discussion around stigma and discrimination experiences important to people living with dementia, as well as planning psychosocial services and initiatives to reduce stigma and discrimination.

## **FC27: Family Caregivers' Perceptions of Expressed Emotion Toward Dementia Patients: A Qualitative Descriptive Study**

**Authors:** Miyae Yamakawa, BSN, Xiaoji Liu, Yasushi Takeya, Kazue Shigenobu

**Objective:** This study aims to explore the perceptions of family caregivers regarding their expressed emotions (EE) towards dementia patients and to identify factors associated with high and low EE.

**Methods:** We conducted qualitative descriptive research through semi-structured interviews with 64 family caregivers of dementia patients, regardless of cohabitation status, from 2021 to 2022. Each caregiver participated in three one-hour interviews over three months. We used the Family Attitude Scale (FAS), a validated 30-item, 5-point Likert scale, to measure EE. Higher scores indicate more critical emotions toward the dementia patient, with a maximum score of 120. Based on expert advice and data distribution, we set a cutoff point at 40; scores above 40 indicate high EE, while scores of 40 or below indicate low EE. Interviews focused on the caregivers' challenges, sources of encouragement, and support systems. Transcripts were analyzed using thematic analysis. The study received approval from the Clinical Research Ethics Committee of Osaka University Future Medical Center.

**Results:** High EE caregivers (scores above 40) reported themes such as: poor pre-existing family relationships, lack of a confidant, severe behavioral and psychological symptoms of dementia (BPSD) in the patient, unemployment, low self-esteem, involvement in toileting assistance, inadequate explanations from physicians, and a tendency to reject public support. Additional themes included feelings of frustration and helplessness, lack of emotional support from other family members, and increased caregiver burden due to high care demands. In contrast, low EE caregivers (scores of 40 or below) highlighted themes including: respect for the care recipient, having multiple confidants, mild BPSD in the patient, employment, cooperation from supporters, and a sense of gratitude for caregiving. Further themes identified in this group were effective communication with healthcare professionals, active engagement in caregiver support groups, higher levels of resilience and coping strategies, and a positive outlook on the caregiving role as a meaningful and rewarding experience.

**Conclusion:** The study identified distinct factors associated with high and low EE among family caregivers of dementia patients. Understanding these factors can help tailor interventions to support caregivers, improve their emotional well-being, and enhance the quality of care for dementia patients.

### **FC28: Compassion fatigue in informal caregivers**

**Authors:** Natasa Todorovic, Milutin Vracevic

**Objective:** More than 80% of all long-term care services globally are provided by informal caregivers. However, they are often overlooked, underrecognized and insufficiently supported. This study analyses how providing informal care affects mental health and how the negative effects may be prevented or mitigated.

**Methods:** A cross-sectional study was conducted among informal caregivers in Serbia. Compassion fatigue and compassion satisfaction (CS) were measured with the Professional Quality of Life Scale (ProQOL) version 5. Compassion fatigue is a concept from the formal care setting, a known work-related phenomenon linked to secondary trauma from prolonged work with suffering/ traumatized patients. ProQOL subscales demonstrated good reliability with a Cronbach alpha coefficient of 0.917 on the CS subscale, 0.891 on the burnout (BO) and 0.857 on the Secondary Traumatic Stress (STS) subscale.

**Results:** A total of 187 informal caregivers participated, with an average age  $56.95 \pm 12.86$  years. 74.9% of the participants were female; the majority married or partnered (62.6%). The median time spent in caregiving was 4 years, ranging from several months to 50 years. The majority of the sample had a moderate compassion satisfaction (72.2%) with moderate levels of compassion fatigue, represented by the BO (67.4%) and STS (64.2%) subscales. Very few participants scored high on CS (3.7%) and high on STS (5.3%). Sex based differences were found for CS and BO domains, with both CS and BO being higher among women ( $p = 0.002$  and  $p = 0.026$ , respectively). BO was found to be higher among singles ( $p = 0.049$ ). Differences were found regarding urban/rural community, with CS being higher among informal caregivers in urban community ( $p = 0.041$ ) and STS being higher in rural community ( $p = 0.004$ ). There was no correlation between age and years spent in caregiving and ProQoL domains.

**Conclusion:** Over the coming decades, in the absence of a proactive approach, the increasing needs for care will significantly increase the burden of informal caregivers and intensify its consequence on mental health, by pushing moderate levels of burnout and STS towards higher values.



### **FC29: Caring for people living with dementia in their own homes: A qualitative study exploring the role and experiences of registered nurses within a district nursing service in the UK**

**Authors:** Juanita Hoe, Alison Trickey, Caroline McGraw

**Objectives:** In the UK, district nursing services (DNS) deliver care to people in their own homes and have regular contact with people living with dementia. Research conducted with nurses working in similar roles outside the UK suggests their contribution to high quality dementia care is limited by compassion fatigue, lack of dementia training and low levels of confidence. However, there is a paucity of research exploring the role and learning and support needs of nurses within DNS. The aim was to gain insight into the role and experiences of nurses caring for people living with dementia at home.

**Methods:** The study was informed by a descriptive phenomenological approach. Semi-structured interviews were conducted with a purposive sample of ten nurses working in DNS. Data were analysed using a thematic approach.

**Results:** Participants described having considerable contact with people with dementia and managing increasingly complex situations despite little training in this field. Care was provided across the illness trajectory from detection and diagnosis of dementia through to end-of-life and the involvement of DNS was instrumental across all stages. Five main themes were identified: 'Home as a care setting' reflected how delivering home-based care shaped participants experiences of caring for people with dementia; 'Taking it in their stride' revealed how participants adapted and responded to the complexity of care needs for people with dementia; 'Complexity and unpredictability' related to the unpredictable nature of people with dementia's care needs and the impact this had on participants' workloads; 'Expertise and support within the wider team' detailed which networks nurses used for advice and support to manage the complex needs of people living with dementia at home; 'Specialist support' identified the need for structural changes and resources to enable the nurses to deliver the care needed.

**Conclusions:** This study enables better understanding of the role of DNS in supporting people with dementia to live at home. This is important for defining how dementia care can become effectively integrated into primary care. Recommendations include improved models of care, which factor in specialist nurses, additional time for home visits and greater emphasis on education and training.

### **FC30: Medical Assistance in Dying and assessment of decisional capacity in dementia: the Dutch Perspective!**

**Authors:** Radboud M Marijnissen MD PhD, Arne van den Bosch BSc, Denise JC Hanssen PhD, RC Oude Voshaar MD PhD

**BACKGROUND:** The Netherlands allows Medical Assistance in Dying (MAID) based on a diagnosis of dementia under strict legal conditions. The number of dementia MAID cases gradually increase every year up to 288 cases in 2022; 282 were decisionally competent and 6 were decisionally incompetent. In decisionally incompetent patients MAID has been granted based on a written advance directive. To assess decisional competence the Dutch euthanasia review committees, refer to criteria of Appelbaum and Grisso.

**Objectives:** To examine which factors, and how, influence the judgment of decisional competence for MAID requests of patients with dementia.

**Methods:** A qualitative analysis was performed of 60 dementia MAID case summaries as published online by the Dutch euthanasia review committees between 2012 and 2021: 20 cases had an advance directive and were decisionally compromised at time of MAID, 40 patients were decisionally competent at time of MAID, of which 20 also had an advance directive (purposive sampling). Two researchers independently coded all text related to decisional competence (thematic analysis). A theoretical framework about the assessment of decisional competence was developed.

**Results:** The four cognitive criteria of Appelbaum and Grisso were dimensional, and cut-off points were influenced by six factors that also directly impacted on competence assessment, i.e. level of communication, psychiatric comorbidity, personality, presence of an advance directive, consistency of the request, and the patient-physician relationship.

**Conclusion:** The framework illustrates the complex multidimensional nature of assessment of decisional competence in dementia patients requesting MAID. Subjectivity of the final judgement poses ethical and legal issues and argues for continuous quality improvement processes.

### **FC31: Assessing physical activity's impact on dementia occurrence among older adults in Brazil: Evidence from the ELSI-Brazil Study**

**Authors:** Wendell Lima Rabelo, Matheus Ghossain Barbosa, Thais Suarez, Lucas Martins, Rafael G. Campos, Laiss Bertola, Natalia Gonçalves, Claudia K. Suemoto, Maria Fernanda Lima-Costa, Cleusa Pinheiro Ferri

**Objective:** The primary aim of this study is to assess the relationship between different aspects of physical activity (PA) and dementia occurrence in older adults from Brazil.

**Methods:** It is a secondary analysis of the first wave data derived from the ELSI-Brazil study, a longitudinal study of aging in Brazil with a representative sample of Brazilians aged 50 years and older ( $n = 9,412$ ). We employed two distinct approaches to assess PA. First, participants' levels of PA were classified in low, moderate and high based on their reported physical exertion over the preceding seven days at the time of interview. Also, PA was classified as sufficient or not sufficient, according to the World Health Organization (WHO) recommendation. Dementia was defined as those who were 60 years and older, had a cognitive performance  $\leq 1.5$  z-score compared to a sub-sample defined as control-group, and also had an impairment in instrumental activity of daily living. Logistic regression was used to estimate the association between physical activity and dementia (crude and adjusted for age, gender, schooling, marital status, smoking and alcohol consumption).

**Results:** After excluding those younger than 60 years old and had missing data to any of the variables analyzed, our sample was composed by 4,994 individuals (table 1), with a mean age of 69.7 (SD = 7 .5), 4.7 years of schooling (SD = 4.3) and 214 (4.1%) classified as living with dementia. We also found that higher levels of PA were associated with lower occurrences of dementia (table 2) (moderate OR 0.57 95% CI 0.37–0.90,  $p < 0.05$ ; high OR 0.32 95% CI 0.19–0.56,  $p < 0.001$ ). Also, practicing the level of PA recommended by WHO had an inverse association with dementia (table 3) (OR 0.49 95% CI 0.30–0.79,  $p < 0.05$ ).

**Conclusion:** The main limitation of our study is its cross-sectional nature. Therefore, we cannot determine the direction of relationships between variables. Our findings show a significant inverse association between levels of PA and dementia occurrence. Additionally, adherence to the WHO's recommendation for PA also showed a significant inverse association with dementia occurrence. These results underscore the importance of promoting regular physical activity as a potential preventive measure against dementia among older Brazilian adults.

### **FC32: Bridging the gap: an estimate of undetected dementia in Brazil and differences between genders, age groups and regions.**

**Authors:** Andrew Christopher Miguel<sup>1</sup> MD; Matheus Ghossain Barbosa<sup>1</sup> MD, PhD; Sonia Brucki<sup>2</sup> MD, PhD; Paulo Caramelli, MD<sup>3</sup> PhD; Jerson Laks, MD<sup>4</sup> PhD; Ricardo Nitrini<sup>2</sup> MD, PhD; Claudia Kimie Suemoto<sup>5</sup> MD, PhD; Lucas Martins<sup>1</sup> MD; Cleusa P Ferri<sup>1</sup> MD, PhD.

1. Department of Psychiatry. Federal University of São Paulo (UNIFESP). São Paulo. SP. Brazil.
2. Department of Neurology. University of São Paulo Medical School (USP), São Paulo. SP. Brazil.
3. Department of Neurology. Federal University of Minas Gerais (UFMG). Belo Horizonte. MG. Brazil.
4. Department of Psychiatry. Federal University of Rio de Janeiro (UFRJ). Rio de Janeiro. RJ. Brazil.
5. Division of Geriatrics. University of São Paulo Medical School (USP). São Paulo. SP. Brazil.

**Objective:** Despite the increasing number of people with dementia (PWD), detection remains low worldwide. In Brazil, PWD is expected to triple by 2050, and diagnosis can be challenging, contributing to high and growing rates of underdiagnosis. At the moment, there is no national estimate of the under detection or characteristics of its distribution according to gender, age and region. We aimed to estimate the proportion of PWD not diagnosed in relation to the estimated number of PWD.

**Methods:** The number of diagnosed individuals were estimated based on national records of the prescription of anticholinesterases drugs (AChE) in 2022 for the treatment of mild and moderate stages of Alzheimer's Disease (AD) held by the Unified Health System (SUS). Data were obtained from <ftp://ftp.datasus.gov.br> and drugs were dispensed according to the national clinical protocol. Studies from the national literature were consulted to estimate: (i) the number of people currently diagnosed with mild and moderate AD; (ii) the proportion of those who obtain AChE from SUS; (iii) the proportion of those who do not take AChE; and (iv) the proportion of AD related to other dementias. We assumed that the under-detection rate of AD would be similar to other dementias and 70% of the diagnosed AD individuals obtain AChE from SUS.

**Results:** More than 80% of the PWD 60+ are undetected (88.7%, 95% CI = 88.6–88.7). The poorest regions had higher rates (94.6% 95% CI = 94.5–94.6) than the richest (84.8%, 95% CI = 84.7–84.8). Men had higher rates (89.8%, 95% CI = 89.7–89.9) than women (87.4%, 95% CI = 87.4–87.5). The youngest age group (60–64) had the highest rate (94.6%, 95% CI = 94.5–94.7) which decreased until 85–89 (84.3%, 95% CI = 84.2–84.4), before increasing again to 91.1% (95% CI = 91.0–91.2) among 90+.

**Conclusion:** Dementia under detection in Brazil is among the highest in the world. Fast populational aging and the highest rates among the youngest individuals are of concern as it may be related to late diagnosis. Gender and regional disparities also need to be considered when developing health policies.

### **FC33: Experiences And Meanings of Alzheimer’s Diagnosis In The Early Stage In Puerto Rico**

**Authors:** Ana Gratacos; Roberto González, Zaira Mateo, Heriberto Acosta

**Summary:** Studies suggest that people in the early stages of Alzheimer’s dementia (AD), a disease first described in 1906, do not have sufficient support to cope with the disease process after a diagnosis (Solomon, 2016). AD is a neurodegenerative syndrome, caused by the progressive accumulation of plaques of amyloid beta proteins and tau proteins, which has no cure and eventually leads to death (Alzheimer’s Association, 2018). Support for people living with dementia, such as support groups, provides spaces in which they can feel free of stigma, understood, in safe environments and receive cognitive stimulation that contributes to their quality of life (Yale, 1995). The scarcity of information about the care preferences, available activities and rights of people living with dementia in Puerto Rico is a very under-researched area that could benefit the quality of life of said population (Vega, J., 2013). The present study, under the qualitative narrative life research approach, sought to address the experiences of people with Alzheimer’s Disease (AD) in the initial stages. The theoretical framework derived from the study on support groups for people with dementia by Yale (2009) and Frankl’s Logotherapy theory (2003) was used. The interviews, via virtual means, were carried out with six individuals chosen under the clinical criteria of a neurologist specializing in AD in a memory clinic in the metropolitan area of Puerto Rico. Through the administration of semi-structured questionnaires and the subsequent analysis of the counts, the need for additional services to those already available for said population was identified.

### **FC34: Consultant characteristics and care pathways in a Memory Unit in Chile.**

**Authors:** Tomás León<sup>3,5</sup> Mauricio Cerda<sup>1,2</sup> José Carrasco-Plaza<sup>2</sup> Andrea Slachevsky<sup>4-7</sup>, Teresita Ramos Franco<sup>5,8</sup> Alejandra Pinto<sup>5</sup> Barbara Gajardo<sup>5</sup>, Evelyn Tabilo<sup>5</sup>, Rodrigo Santibañez<sup>9</sup> Danay Espinoza<sup>5</sup>

1. SCIAN-Lab, Programa de Biología Integrativa, ICBM, F-Med, U-Chile.
2. Centro de Informática Médica y Telemedicina, F-Med, U-Chile.
3. Global Brain Health Institute
4. Geroscience Center for Brain Health and Metabolism (GERO), Santiago, Chile
5. Memory and Neuropsychiatric Center (CMYN) Neurology Department, Hospital del Salvador & Faculty of Medicine, University of Chile.
6. Neuropsychology and Clinical Neuroscience Laboratory (LANNEC), Physiopathology Program – Institute of Biomedical Sciences (ICBM), Neuroscience and East Neuroscience Departments, Faculty of Medicine, University of Chile, Santiago, Chile.
7. Neurology and Psychiatry Department, Clínica Alemana-Universidad Desarrollo, Santiago, Chile
8. Faculty of Medicine, Department of Neurology Finis Terrae University
9. Department of Neurology, Faculty of Medicine, Pontificia Universidad Católica de Chile. Santiago, Chile.

**Summary:** Specialist Memory Clinics play a crucial role in evaluating individuals suspected of dementia. While these clinics have long been established in developed economies, their introduction has only recently begun in developing countries. In Chile, Memory Clinics were implemented as part of the Chilean Memory Plan and the inclusion of dementia in the General Regime of Explicit Guarantees in Health. This legal framework ensures access to diagnosis and treatment for patients with dementia. The Chilean system prioritizes primary care, with specialist care reserved for cases where diagnosis or treatment cannot be adequately addressed at the primary care level. As a result, Memory Units serve only a subset of diagnosed dementia patients. So far, there is a lack of studies on the clinical profiles of patients evaluated in memory clinics and resource utilization.

**Objective:** This study aims to comprehensively describe patient demographics and clinical characteristics while examining the frequency of evaluations needed about their specific diagnoses and comorbidities.

**Methods:** We analyzed the total number of consultations, considering the primary diagnosis and any comorbidities present. Clinical records were managed using a customized web platform software, which enabled the healthcare team to document all patient interactions, including appointments, medication prescriptions, and care coordination.

**Results:** CMYN received 1,220 patients (57% women) and 36 caregivers in the first five years. Among the patients, 222 (20%) had mild cognitive impairment, while 622 (57%) had dementia, with 48% diagnosed with Alzheimer's disease dementia and 58% with other types of dementia. More than 75% of patients had less than ten consultations. Patients with dementia had more consultations than those without, as presented in Table 1.

**Conclusion:** The recent establishment of Memory Clinics in developing countries addresses a crucial gap in specialist care for dementia patients. In our experience, the diagnosis and the number of comorbidities may predict the level of interventions patients require. A more comprehensive understanding of the patient profile and their needs will assist in tailoring resources for implementing memory clinics and estimating the cost of care. Further studies need to address the characteristics of patients that require specialist-level attention.

### **FC35: Attitudes of Primary Care Physicians towards Cognitive Impairment-Dementia. A survey in Galicia, Spain**

**Authors:** Raimundo Mateos, Francisco J. Formigo-Couceiro, Cesar Bugallo-Carrera, María José Fernández-Domínguez, Mercedes A. Hernández-Gómez, Sr., Antia Iglesias-Mella, María Elena Mosquera, Néstor J. Sánchez-Sánchez

**Introduction and objective:** Cognitive impairment-dementia is an increasing health concern with a major economic and social impact. This study aims to examine how it is currently approached in primary care practices in the Autonomous Community of Galicia, Spain.

**Methods:** A working group was formed between two scientific societies, which developed a survey that was sent online to 2206 primary care doctors, subsequently analysing the responses received.

**Results:** A total of 124 primary care doctors (5.3%) responded to the survey, 69.4% of which were women, with a mean age of 54 years. Out of these doctors, 92 (80%) have been working for more than 10 years, 30 (24.2%) have never received any training on the topic of study and only 31 (25%) have received some training in the last 5 years. The initial complaint derives from close relatives (76.6%) and this complaint usually entails memory problems (59.7%). The screening test used by 77.4% of the professionals is the MMSE with a higher prevalence among younger doctors ( $p$ -value 0.04). In the case of suspected cognitive impairment, doctors perform a cognitive assessment scale (96%), order a blood test (83.9%) and perform functional assessment scales (77.4%). They do so on a scheduled basis (79%). In total, 42.7% recognise that they reach the diagnosis in moderate dementia stages, hindered as a result of care-based reasons (66.9%). Doctors have difficulties in detecting the pathology associated with cognitive impairment in 52.4% of cases. In dementia management, 66.1% have difficulties in providing caregiver support and 42.7% with pharmacological treatment. In cases of advanced dementia, the problem is the lack of support from social services (47.6%), hospital specialists (45.2%) and the difficulty of pharmacological treatment (43.5%).

**Conclusions:** Primary care doctors report that the main barriers in the care for cognitive impairment-dementia are: training, healthcare organization, social, management of specific dementia treatments and associated pathologies and coordination with hospital care.

**Key words:** Primary care, cognitive impairment, dementia, screening, survey, attitudes

### **FC36: Desatar Argentina: Transforming the Care of Older Adults in Long-Term Care Facilities**

**Authors:** Rubin Romina, Szulik Judith

**Introduction:** Desatar Argentina is an interdisciplinary group of professionals dedicated to eliminating the use of physical restraints in gerontological care settings. Since its foundation in 2017 under the auspices of the Argentine Society of Gerontology and Geriatrics (SAGG), the group has been committed to promoting respect and dignity for older adults, guided by the International Convention on the Rights of Older Persons.

**Mission:** Desatar Argentina's mission is to raise awareness about the harm caused by physical restraints and to promote strategies for their elimination, generating a cultural change within health and social care organizations. We aim to sensitize both society and healthcare professionals about the importance of respecting the dignity of older adults.

**Trajectory:** Since its inception, Desatar Argentina has undertaken numerous activities, including:

- In 2018, the first "Desatar para cuidar" event at LedorVador.
- In 2019, presenting the research on the effectiveness of a multicomponent intervention program to eliminate physical restraints in a long-term care facility (which also obtained an award) at the XVI Argentine Congress of Gerontology and Geriatrics.
- Publications in the SAGG Journal and other media to widely disseminate the group's message.
- Training courses for care home professionals, focusing on tools and strategies to eliminate the use of physical restraints.

**Future Perspectives:** Desatar Argentina will continue to work to:

- Promote research and dissemination of new care modalities that prioritize the fundamental rights of older adults.
- Foster ongoing training of health and social care professionals on the risks and alternatives to restraints.
- Promote sustainable cultural change within care centers to ensure a restraint-free environment focused on respect and dignity for older adults.
- Undertake the evaluation and assessment of chemical restraints.
- Promote the elimination of physical restraints in the hospital environment.

**Conclusion:** Desatar Argentina has shown that it is possible to eliminate physical restraints in long-term care facilities, significantly improving the quality of life for older adults. Continuous training and awareness-raising are essential to promote restraint-free care and transform organizational culture in favor of the rights and dignity of older adults.

**Keywords:** Physical restraints, gerontology, dignity, restraint-free care, quality of life, Desatar Argentina, organizational culture.

### **FC37: The use of narrative approaches to improve quality of care in the long-term care setting: a scoping review**

**Authors:** Mirjam Kalisvaart, Msc., Marjolijn Heerings, Lieke Oldenhof, Anne Margriet Pot

**Objective:** Experienced quality of care of older people using long term care is not sufficiently reflected in quantitative quality measures, like surveys or indicators. Therefore, care organizations increasingly use narrative approaches to collect and analyze experiences of clients, relatives, and professionals with quality of care. These methods enable care organizations to share experiences, identify dilemmas in care provision and provide rich information for quality improvement. However, information about such methods is scattered. The aim of this scoping review is to explore which types of narrative approaches are used for quality improvement in the long-term care setting for older people. The review identifies, among other things, types of narrative approaches, their goal and challenges.

**Methods:** A literature search (in Embase, Medline ALL, Web of Science Core Collection, CINAHL, PsycINFO, Sociological Abstracts – proquest, Social Services Abstracts, International Bibliography of the Social Sciences, Google Scholar) was performed from inception up to 28th of April 2022. Thirty-nine articles were included.

**Results:** Almost all included studies were from Western countries, in particular the Netherlands and Canada, and much focused on intramural care. Different types of narrative approaches were identified, such as a participatory or co-design, photovoice or interview approach. The goal of the approaches was directed at the client, care relationship, organization, or a combination of those levels. The agenda for quality improvement was usually informed by insights revealed during the execution of the narrative approach and researchers were often leading this process. Most approaches are used in practice only once at one or more locations. Findings and suggestions for further research will be discussed, for example about including people with cognitive impairments or relatives.

**Conclusions:** This scoping review revealed a variety of approaches that attempt to collect narrative information from older people, relatives, and professionals to improve quality of long-term care. Development opportunities for narrative approaches are structural embedding of narrative approaches in practice, including people with (severe) cognitive problems, and effect studies about achieved improvements.

### **FC38: Advance care planning with older people living with psychosis- preliminary findings regarding the experiences and attitudes of mental health clinicians with a view to implementation strategy.**

**Authors:** A/Prof Anne Wand<sup>1,2,3</sup>, Ms Yucheng (Celeste) Zeng<sup>4,5</sup>, Ms Roisin Browne<sup>6</sup>, Dr Aspasia Karageorge<sup>7</sup>, Prof Carmelle Peisah<sup>1,2,6</sup>

1. Specialty of Psychiatry, Faculty of Medicine and Health, University of Sydney
2. School of Psychiatry and Mental Health, Faculty of Medicine and Health, University of New South Wales
3. Older Peoples Mental Health, Sydney Local Health District
4. Faculty of Medicine and Health, University of Sydney
5. Macquarie University
6. Capacity Australia
7. Brain and Mind Centre, University of Sydney

**Objective:** Older people living with mental illness, including schizophrenia and other psychotic disorders, experience increased physical morbidity and premature mortality rates compared to the general population. However, Advance Care Plans (ACP) are rarely documented in this group, despite ability to discuss end-of-life care and express wishes. The aim of this study is to explore mental health clinicians' attitudes, experiences, and perceived barriers and facilitators to ACP with people living with psychotic illnesses, to better understand the reasons for this gap and develop a needs-responsive approach to implementation.

**Methods:** This qualitative study involves focus groups of multidisciplinary mental health clinicians who work with people aged 55+ with psychotic illnesses. It is being conducted in three public mental health services in Sydney, Australia. Focus groups are audio-recorded, transcribed and analysed using reflexive thematic analysis, grounded within an interpretive description framework.

**Results:** Preliminary findings from an unsaturated sample of 12 multidisciplinary clinicians (psychiatrists, social workers, occupational therapists, psychologists) will be presented. Emerging themes regarding experiences of ACP include 'no experience', 'not a priority', 'particular relevance for nursing home residents' and 'difficult to navigate consumer choices in the context of delusions'. Emerging themes in relation to attitudes about implementing ACP with people with psychotic illnesses include: 'ACPs are needed', 'ambivalence', 'I don't know how', and 'whose responsibility are ACPs?'. Barriers to ACP include: 'misconceptions about ACP', 'misperceptions about psychotic illness', 'clinician uncertainty- capacity, emotional state, psychosis risk', 'systems issues', 'lack of knowledge and confidence', and 'interfering with therapeutic relationships'. Potential facilitators include: 'get the timing right', 'make it multidisciplinary', 'opportunity to practice', 'embed in protocol', 'upskilling clinicians- modelling and training', and 'support from an external ACP role'.

**Conclusion:** Mental health clinicians may be the only healthcare professional in contact with an older person living with psychosis, providing unique opportunities to explore ACP. Clinicians recognise the need for ACP, the complexity of such discussions, and importance of nuanced capacity assessment and appropriate timing. Proposed solutions to implementing ACP include combining targeted education with practical training for clinicians, embedding ACP in practice using a team approach and system change, or -alternatively-through a dedicated external ACP role.

### **FC39: How Can We Enhance Mental Health Care for Older Adults?**

**Authors:** Olga Koblova

**Objective:** With the global growth of the population of older adults, the prevalence of mental health disorders in this age group is also increasing. Despite the high demand for prompt access to specialized care, referrals to geriatric psychiatry are still disproportionately low, as suggested by the review of current epidemiological studies. Research data evaluating referral patterns to geriatric specialists are limited and indicate that primary care providers play a key role in the referral process.

**Method:** As a part of a year-long Archstone Learning Collaborative, a group of geriatric psychiatrists has had monthly meetings discussing various contemporary issues in geriatric psychiatry. One of the projects was to clarify a decision-making process for medical professionals and caregivers, to help them determine when to refer to geriatric specialists, including geriatric psychiatrists.

**Results:** We reviewed the most common criteria for referral to geriatric psychiatrists and other specialists with overlapping expertise in geriatric mental health care. We have worked on a diagram and a flowchart to help navigate the referral process. To empower primary care providers and other medical professionals, we created a flyer for caregivers, educating them on what signs and symptoms may indicate the need for seeking a referral to geriatric psychiatrists.

**Discussion:** Encouraging interdisciplinary collaboration and streamlining referral processes are crucial to fulfilling the increasing demand for geriatric psychiatry services. To guarantee older adults receive the specialized care



they need, it is important to raise awareness among various medical professionals regarding the referral criteria and the roles of different geriatric specialty providers. Caregivers are essential to the referral process because they can identify warning signs and symptoms and seek referrals. Overall, this presentation offers insightful information about the referral process to geriatric psychiatry, intending to enhance access to mental health care for older adults with mental health disorders.

**FC40: Resourceful Community Health Workers providing care to older adults with depression: knowledge and strategies as key elements in a mental health community-based intervention.**

**Authors:** Diego Otero-Oyague, Oscar Flores-Flores, Dafne Lastra, Ivonne V. Carrión, Tatiana Cruz, Suzanne Pollard, José Parodi, Lesley Steinman, Joseph Gallo

**Objective:** To describe and analyze the knowledge and resources of Community Health Workers (CHWs) in delivering an evidence-based mental health community intervention for older adults with depression (“VIDACTIVA”) in an urban low-income setting in Lima, Peru. CHWs delivered a multi-component intervention that includes problem-solving, behavioral activation, and psychoeducation over eight sessions. We analyze data integrating CHWs perspectives to assess the feasibility and acceptability of the intervention.

**Methods:** We conducted a qualitative study with 16 CHWs aged 45 to 73 who delivered “VIDACTIVA” program to 32 older adults. Over an 18-month period, we collected data through in-depth interviews with CHWs, field notes from weekly meetings with them to assess the progress of older adults, and an exploratory-artistic workshop that produced collages with poetic narratives and short testimonial videos. These data collection methods aimed to elicit both individual and collective assessments of CHWs’ experiences delivering the program. Beyond traditional data collection, we provided a reflective space for CHWs to consider the meaning of their work and identify lessons learned throughout the intervention.

**Results:** We identified three key learnings and resources employed by CHWs: 1) Trust and rapport: Good listening and establishing trustworthy interpersonal bonds were crucial in building rapport and respect when working with vulnerable older adults in insecure peri-urban areas of Lima. 2) Adapting session settings: CHWs adapted the conditions of the sessions to ensure viability, such as moving sessions from the older adults’ home to a public area where older adults felt safer discussing family issues. Additionally, CHWs sometimes refrained from wearing uniforms and ID cards that identified them as mental health agents to avoid the stigma associated with mental health illnesses. 3) Addressing urgent needs: CHWs took concrete actions to meet the urgent needs of the most vulnerable older adults, such as arranging medical appointments or accompanying them to the hospital.

**Conclusion:** CHWs primarily focused on strategies that build strong and intimate interpersonal bonds, which made the sessions viable, accepted, and appreciated by older adult participants. We highlight the importance of leveraging CHWs’ experience and knowledge as a critical factor for enhancing acceptability and feasibility in conducting community-based interventions.

### **FC41: Quality Improvement to Manage Long Wait Lists in an Ambulatory Geriatric Mental Health Program**

**Authors:** Robert Madan, Malcolm Binns, Calen Freeman, Jenny Moloney, Jay Rueda, Jagger Smith

**Background:** The COVID-19 pandemic resulted in reduced patient access and deferral of medical services. Long wait times for patients to access specialized medical care became a challenge to health care systems. Baycrest is an academic health sciences centre in Toronto, Canada, that specializes in post-acute and ambulatory care for older adults. As a result of deferred care, wait times for the mental health services increased significantly. This compelled the ambulatory mental health program to apply quality improvement methods to identify and prioritize care for the most unwell people on the waitlist, while avoiding duplication of referrals between hospitals. This study aimed to assess the utility and feasibility of this new process.

**Methods:** The quality process involved a Rapid Design Event approach, where the mental health programs created inclusion and exclusion eligibility criteria and established a priority system to assign patients to one of three categories based on need: high priority, routine, and decline. Identification of high priority referrals was meant to allow the most unwell patients to be seen sooner. The central navigation process was refined through quality improvement huddles and standard feedback mechanisms. After three weeks of trialing the process, a sustainability plan to move to operations was applied, and results were continuously monitored through reports and improvement board huddles.

**Results:** In the first 3 months of implementation, the percentage of patients receiving meaningful clinical contact within 14 days of referral increased from 3.8% to 82.3%, with contact by a clinician within an average of 4 days. Across the ambulatory mental health programs, wait times for psychogeriatric assessment for high priority patients improved from 141 days to 31.8 days. Factors leading to the improvement will be discussed.

**Conclusions:** The central navigation and extended triage processes were found to be feasible and of great utility. The high priority patients who needed to be assessed sooner were identified through an extended triage process. Meaningful clinical contact was made within days and wait times reduced for those most in need. This demonstrated how a quality improvement process can lead to significant improvements in health care delivery.

### **FC42: The Impact of Pre-Assessment Counselling in Dementia Care According to Healthcare Practitioners**

**Authors:** Marie Janes, Anna Buckell, Bethany A. Jones, Miriam Park, Stephen P. Badham

**Introduction:** Dementia continues to be a global health concern owed to its increasing prevalence and coupled with physical and psychological burden. It is also the most feared diagnosis amongst older adults which may contribute to underdiagnosis. Pre-assessment counselling (PAC) may reduce fear and increase diagnoses when people with suspected cognitive impairment are empowered with choice and feel in control of their diagnosis journey.

**Method:** This study recruited 10 clinicians from an NHS memory clinic in England, UK, and, using semi-structured interviews, sought to understand the mechanisms and effectiveness of PAC.

**Results:** Using reflective thematic analysis, 3 themes were found. 1. The person with dementia (PwD) is central in their diagnosis journey. 2. Candid conversations build strong therapeutic alliances. 3. Patients are more than their diagnoses.

**Discussion:** Clinicians emphasized the importance of timely diagnosis for the wellbeing of PwD, while also recognizing the need for patient-centred and collaborative approaches. Additionally, the study highlighted the significance of empowering PwD in decision-making processes, fostering resilience through comprehensive support, and addressing stigma through candid conversations to improve diagnostic outcomes and enhance patient engagement in dementia care. The study indicates that PAC is effective in enabling timely diagnoses, but there is a lack of dedicated appointments in NHS Trusts where PwD are empowered to manage their dementia journey and subsequent care.

**Keywords:** dementia care, healthcare practitioners, timely diagnosis, dementia diagnosis, counselling, mental health, quality of life, agency, assessment, pre-assessment counselling, pre- diagnostic counselling, reflexive thematic analysis.

### **FC43: A guide to developing individualized behavioral care plans for expressions in advanced neurocognitive disorders (ANCD) and based on the meaning ascribed to them.**

**Author:** Atul Sunny Luthra, MD, MSc, FRCPC

Expressions in ANCD are viewed as a *mode of communication* and ascribing *meaning* for their presence the key step to developing individualized behavioral care plans. Existing dementia care philosophies (PIECES™, GPA™, DementiaAbility and Teepa Snow Dementia Workshops) offer general directions but fail assist in ascribing *meaning* for the individual or clustering of the constellation of, varied phenotypic presentation of expressions in ANCD. The first step was to establish a *biopsychosocial* model for the generation of expressions; as all existing models were dichotomized along *biological* and *psychosocial* lines. The next step was developing a classification for the various phenotypic manifestations of expressions. This involved collecting ‘alike’ symptoms into individual categories and giving each category title which adequately represented the symptoms therein. Formation of behavioral categories was justified using existing validated psychological theories. Five psychological theories used to justify existence of behavioral categories: Information Processing Theories, Motivational Theories, Emotional Regulation Theories, Developmental Theories and Theories on Compliance and Aggression. These theories were able to ascribe *meaning* to individual behavioral categories and derived from their lived experiences: their Personhood. The ascribed meaning offers a framework for developing an individualized behavioral care plan for the expressions represented in each behavioral category. This framework, titled, LuBAIR™ Paradigm was structured in the form of an evaluative framework, both quantitative and qualitative, and presented as full day workshops, between 2017 to 2019, to frontline staff trained in existing dementia care philosophies. 92% of the attendees affirmed this paradigm’s ability to offer better assistance in “behavior care planning”. Qualitative thematic analysis: An innovative, simplified, enhanced, and comprehensive approach to understanding the reasons for the occurrence and recognition and labeling of behaviors in PwNCD. This approach offers increased insight into the understanding of “meaning” of behaviors in PwNCD. The Journal of Aging and Social Change: Volume 12, Issue 1, 2021.

### **FC44: Trajectories of depressive and anxious symptomatology in Chilean family carers of people with dementia: a longitudinal study**

**Authors:** Miranda-Castillo, C., Slachevsky, A., Tapia-Muñoz, T., Madrid, M., & Gómez, F

**Objective:** Latin American longitudinal studies in family carers of people living with dementia (PLWD) are scarce. This study aimed to determine the trajectories of depressive and anxious symptomatology in Chilean family carers of PLWD over two years.

**Methods:** A telephone survey was conducted with 300 family caregivers of PLWD at baseline (T1) who responded to a survey about themselves, characteristics of the PLWD, and social factors. In the second wave, 208 carers participated (T2), and 155 in the third wave (T3). Latent Growth Curve and Latent Class Growth Mixture analyses were performed.

**Results:** Both depressive and anxious symptomatology increased significantly over time ( $p < 0.001$ ). Ninety-five percent of carers, regardless of the level of depressive symptomatology at baseline, showed statistically significant trajectories of increase in depressive symptomatology ( $p < 0.001$ ). In addition, 67% of carers (with low and high baseline levels) showed a significant progressive increase in anxious symptomatology ( $p < 0.005$ ) and 33% remained at a moderate level of depressive symptomatology ( $p = 0.07$ ). Finally, it was found that anxious symptomatology increased by 0.82 points more in women compared to men ( $p = 0.01$ ).

**Conclusion:** The results emphasize the importance of ongoing screening for depressive and anxious symptomatology in carers over time, particularly in women. Health professionals in primary care should be capacitated to assess and offer timely and appropriate support to family carers of PLWD in order to improve their mental health. Finally, interventions for carers should be an essential part of national dementia plans.

#### **FC45: Decision-Making Capacity and Awareness in People with Young-Onset Alzheimer's Disease**

**Authors:** Marcia Dourado, Tatiana Belfort, Marcela Nogueira, Natalie AP Souza, Maria Alice Baptista

**Objective:** There is a lack of research on differences between decision-making capacity and awareness according to age at onset of dementia. We investigated the relationship between decision-making capacity and awareness domains in people with young-(YOAD) and late-onset Alzheimer's Disease (LOAD).

**Method:** A cross-sectional study included 169 consecutively selected people with AD and their caregivers (124 people with LOAD and 45 people with YOAD). Decision-making capacity was assessed with the MacCAT-T and awareness with the ASPIDD scale.

**Result:** People with YOAD were more cognitively impaired, but more aware of their cognitive deficits and health condition, with moderate effect sizes. We did not find any other significant differences between the groups in the other domains of awareness. In addition, there were no significant differences in the domains of decision-making capacity between groups. All PwAD presented deficits in the domains of decision-making capacity with a greater impairment in the understanding domain (YOAD = mean 3.67, SD 1.57; LOAD = mean 3.80, SD 1.22). Understanding was the domain of MacCAT-T most significantly associated with awareness domains: ASPIDD Total ( $p < 0.001$ ), awareness of cognitive deficits and health condition ( $p < 0.001$ ), awareness of emotional state ( $p < 0.008$ ), awareness of social functioning and relationships ( $p < 0.001$ ), and awareness of impaired functional activity ( $p < 0.001$ ). However, age at onset only impacted total ASPIDD ( $p < 0.013$ ) and awareness of cognitive deficits and health condition ( $p < 0.001$ ).

**Conclusion:** Better awareness involved better understanding in the YOAD group. Clinically, our findings shed light on the need to consider the differences in the domains of awareness and their relationship with other clinical aspects such as decision-making capacity according to age at onset of AD.

### **FC46: Sex differences in population attributable fractions of modifiable dementia risk factors: evidence from Rush University Memory and Aging Project.**

**Authors:** Jissa Martin<sup>1,2</sup>, Dr David D. Ward<sup>1,2</sup>, Dr Natasha Reid<sup>1,2</sup>, Prof. Ruth E. Hubbard<sup>1,2,3</sup>, Dr Emily H. Gordon<sup>1,2,3</sup>

1. Centre for Health Services Research, Faculty of Medicine, The University of Queensland, Brisbane, Queensland, Australia
2. Australian Frailty Network, The University of Queensland, Woolloongabba, QLD, Australia
3. Princess Alexandra Hospital, Metro South Hospital and Health Service, Queensland, Australia

**Objective:** Understanding how the importance of modifiable risk factors for dementia varies by cognitive status and sex is vital for the development of effective approaches to dementia prevention. We aimed to calculate population attributable fractions (PAFs) for incident dementia associated with sets of risk factors while exploring sex differences in individuals who are cognitively normal (CN) or has mild cognitive impairment (MCI).

**Methods:** Longitudinal data from the Rush University Memory and Aging Project (MAP) were analysed. Included participants were aged over 50 years and were CN or with a diagnosis of MCI at their baseline assessment. Analyses considered fifteen potential dementia risk factors covering cardiometabolic, lifestyle, psychosocial and sensory domains. We used Cox proportional hazard models to estimate the hazard ratios for incident dementia associated with dementia risk factors and calculated weighted PAFs. All analyses were repeated stratified by sex.

**Results:** The analytical sample comprised 754 cognitively normal participants (77.2% female) and 242 participants with a diagnosis of MCI (71.9% female), of whom 214 (28.4%) and 120 (49.6%) were diagnosed with dementia across the follow-up, respectively. Although the weighted overall PAF was similar for CN (24.7%) and MCI (25.2%) subgroups, sex differences were present in both. Compared to in females, PAFs were higher in males in both CN (42.5% vs. 25.1%) and MCI (51.6% vs 12.3%) subgroups. The profiles of contributing risk factors also varied by sex. In males, the highest PAFs were smoking (11.1%), vision impairment (6.2%) and stroke (6.0%) in CN and smoking (13.3%), physical inactivity (12.9%) and heart attack (7.9%) in MCI. In females, the highest PAFs were unmarried marital status (4.9%), depression (4.1%) and social isolation (3.8%) in CN and vision impairment (4.4%), increased alcohol intake (3.5%) and depression (2.6%) in MCI.

**Conclusion:** These findings support the notion that dementia risk is modifiable after the onset of MCI. They also highlight the potential benefits of considering an individual's cognitive status and sex when formulating dementia prevention strategies.

### **FC47: Is dementia a tragedy? Comments from the philosophy of ambiguity.**

**Authors:** Juan Francisco Flores-Vázquez<sup>1</sup>, Rodrigo Gómez-Martínez<sup>2</sup>, Luis Miguel F. Gutiérrez- Robledo<sup>1</sup>

1. Clinical Epidemiological Research Department, National Institute of Geriatrics, Mexico.
2. Comprehensive Care Unit, National Institute of Geriatrics, Mexico.

**Introduction:** In public discourse and media, as well as in medical settings, dementia is often portrayed as a tragedy, a perspective that contributes to stigma. Descriptions using metaphors like decaying fruit, or statements labeling dementia as “death in life” and a “tsunami for healthcare systems,” not only perpetuate negative emotions like fear and helplessness, but also promote social distance. These dehumanizing expressions can intensify the suffering of those living with dementia and those around them, besides complicating understanding of the condition, exacerbating social isolation, and hindering timely medical attention. Questioning the narrative of dementia as a tragedy does not imply denying or underestimating the challenges and suffering associated with this condition. However, diagnosis should not hinder the recognition of moments of pleasure, the potential for internal growth of the person living with dementia and those around them, as well as the persistence of connection and dignity. The philosophy of ambiguity offers a useful framework for countering a stigmatizing narrative and addressing dementia with a more compassionate and nuanced approach. The philosophy of ambiguity, primarily expounded by Simone de Beauvoir, invites us to recognize the coexistence of multiple realities and the simultaneous presence of contradictions. This is reflected in the complex contradictions and paradoxes present in our experiences, both personal and social. Health itself is an ambiguous concept, representing not only the absence of illness but also a dynamic and multifaceted state, culturally and contextually influenced. By focusing on preserved abilities, we can contribute to the well-being of those living with dementia, reinforcing their dignity and self-esteem. The success of this approach depends on having adequate social support and an effective healthcare system. Understanding dementia in a broad social and cultural context allows us to overcome the traditional Manichean view that categorizes it strictly as either tragedy or well-being. It is crucial for medical personnel to use empathetic and respectful communication to maintain dignity and foster hope in those living with dementia. Listening carefully and avoiding stigmatizing language are fundamental to recognizing individual worth and creating a more compassionate and humane care environment.

Table 2.- QoL by OPQOL-Brief

QoL by OPQOL-Brief	%
Very bad QoL	34.6
Bad QoL	19.2
Good QoL	15.4
Very good QoL	30.8

**FC48: Prevalence of depressive symptoms and diminished QoL in older patients with ESKD receiving HD in a tertiary level private hospital in Monterrey, Mexico.**

**Authors:** Aníbal Gutiérrez-Torres (1), Karina Rodríguez-Quintanilla (1), Rogelio Maya-Quinta (2), Alejandro Valdes-Cepeda (2), Alejandro Valdes-Canales (2)

1. Geriatrics Service, Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM), Nuevo León, México.

2. Nephrology Service, Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM), Nuevo León, México.

**Introduction:** The ageing population with chronic kidney disease (CKD) has been increasing in developing countries and many of them are receiving Hemodialysis (HD) [1]. The prevalence of depression and other geriatric syndromes as well as the quality of life (QoL) in this population remains unknown since patients undergoing HD seldom receive a Comprehensive Geriatric Assessment (CGA) [2].

**Objective:** To investigate the prevalence of depression and other geriatric syndromes as well as QoL in older patients with ESKD receiving HD.

**Methodology:** In patients 50 years and older, receiving HD in a private tertiary hospital in northern Mexico, we applied a CGA consisting of functionality (Barthel and Lawton & Brody), comorbidity (Charlson Index), cognition (MoCA), depression (GDS), frailty (CFS), nutrition (MNA- SF), sarcopenia (EWSOP2), falls, and quality of life (OPQOL-Brief). Of 52 patients in the HD unit, 35 were eligible for the study. 9 patients did not give consent to participate in the study, resulting in a population of 26 patients.

**Results:** The mean age of the population was 68.85 years and 61% were women. Using a cut-off point of 5 points in the 15-item GDS to define the presence of depressive symptoms, 42.3% of the studied population presented depressive symptoms. We further stratified the severity of this symptoms into mild, moderate and severe (Table1). Most patients presented mild depressive symptoms (72.81%).

Table 1.- Severity of Depression by GDS Score

Severity of Depression by GDS Score	%
Mild Depressive Symptoms (GDS 5-8)	72.81
Moderate Depressive Symptoms (GDS 9-11)	8.98
Severe Depressive Symptoms (GDS $\geq$ 12)	18.2

Additionally, by OPQOL-Brief, the majority of patients (34%) reported having a very bad quality of life (Table 2). Of note, we also found that the median number of geriatric syndromes presented by each patient was 6, which is higher than what has been reported internationally in similar populations [2]. Of these, the most common geriatric syndromes were: dependence in Instrumented Activities of Daily Living (IADL) (92.3%), followed by cognitive impairment (84.6%) and inadequate nutritional status (80.8%).

**Conclusion:** Our findings revealed that 4 out of 10 older patients with ESKD receiving HD presented depressive symptoms, however most of them presented only mild depressive symptoms. Additionally, the majority of patients reported having a very bad quality of life.

#### **FC49: Association between indoor ventilation frequency and depressive symptoms among older Chinese adults**

**Authors:** Xinxin Luo, Yuanlong Wang, Yingli Zhang, Yongjun Wang

**Objectives:** Indoor air pollution exposure is harmful to people's physical and mental health, especially in the elderly population, and represents a major issue for human health. Natural ventilation can improve indoor air quality and remove indoor contamination, thus reducing the adverse effects of indoor air pollution exposure on physical and mental health. Depressive symptoms are the most common mental health issue among elderly individuals. However, evidence linking the frequency of indoor natural ventilation to depressive symptoms in the elderly population is limited.

**Methods:** This study included 7887 individuals 65 years and older from 2017 to 2018 in the China Longitudinal Healthy Longevity Survey (CLHLS). The frequency of indoor natural ventilation was measured as the self-reported frequency of window opening per week in each season. Depressive symptoms were measured by the 10-item Center for Epidemiologic Studies Short Depression Scale (CES-D). Using a model adjusted for demographic, socio-economic, health status, and environmental factors, the correlation between indoor ventilation frequency and depressive symptoms was verified through logistic regression.

**Results:** Among the 7887 elderly people included in this study, 1952 (24.7%) had symptoms of depression. In the fully adjusted model, compared with the lower indoor overall ventilation frequency group (indoor ventilation frequency: 0–3 times/week), the higher indoor overall ventilation frequency group (indoor ventilation frequency: 6–8 times/week) showed a decrease in depressive symptoms by 33% [OR: 0.67, 95% (CI): 0.51–0.88]. Subgroup analysis and sensitivity analysis yielded similar results.

**Conclusions:** High frequency of indoor ventilation is significantly associated with the reduction of depressive symptoms in Chinese individuals 65 years old or older. This result provides strong evidence for health intervention and policy formulation. Encouraging an increase in indoor ventilation frequency will be an economically beneficial measure to promote healthy aging of the Chinese population.

### **FC50: Using Complexity Analysis to Explore the Differences of Resting- state fMRI Data Among Late-life Depressed, Mild Cognitive Impaired, and Cognitive Normal Older Adults.**

**Authors:** Chemin, Lin<sup>1,2,3</sup>, Chih-Mao Huang<sup>4</sup>, Yu-Wen Wu<sup>5</sup>, You-Xun Chang<sup>5</sup>, Yi-Chia Wei<sup>2,3,6,7</sup>, Yao-Liang, Chen<sup>8</sup>, Pin-Yuan Chen<sup>2,3,8</sup>, Yu-Chiau Shyu<sup>3</sup>, Chih-Ken Chen<sup>1,2,3</sup>, Shun-Chi Wu<sup>5</sup>

1. Department of Psychiatry, Keelung Chang Gung Memorial Hospital, Keelung City, Taiwan
2. College of Medicine, Chang Gung University, Taoyuan County, Taiwan
3. Community Medicine Research Center, Chang Gung Memorial Hospital, Keelung, Keelung, Taiwan
4. Department of Biological Science and Technology, National Yang Ming Chiao Tung University, Hsinchu, Taiwan
5. Department of Engineering and System Science, National Tsing Hua University, Hsinchu, Taiwan
6. Department of Neurology, Keelung Chang Gung Memorial Hospital, Keelung, Taiwan
7. Institute of Neuroscience, National Yang-Ming University, Taipei, Taiwan
8. Department of Medical Imaging and Intervention, Chang Gung Memorial Hospital, Keelung, Taiwan

**Introduction:** Late-life depression (LLD) is associated with cognitive deficit with risk of future dementia. By examining the entropy of the spontaneous brain activity, we aimed to understand the neural mechanism pertaining to cognitive decline in LLD.

**Methods:** We collected MRI scans in older adults with LLD (n = 32), mild cognitive impairment [MCI (n = 25)] and normal cognitive function [NC, (n = 47)]. Multiscale entropy analysis (MSE) was applied to resting-state fMRI data. Under the scale factor (tau) 1 and 2, reliable separation of fMRI data and noise was achieved. We calculated the



brain entropy in 90 brain regions based on automated anatomical atlas (AAL). Due to exploratory nature of this study, we presented data of group-wise comparison in brain entropy between LLD vs. NC, MCI vs. NC, and LLD and MCD with a p-value below 0.001.

**Results:** The mean Mini-Mental State Examination (MMSE) score of LLD and MCI was 27.9 and 25.6. Under tau 2, we found higher brain entropy of LLD in left globus pallidus than MCI ( $p = 0.002$ ) and NC ( $p = 0.009$ ). Higher brain entropy of LLD than NC was also found in left frontal superior gyrus, left middle superior gyrus, left amygdala and left inferior parietal gyrus. The only brain region with higher brain entropy in MCI than control was left posterior cingulum ( $p$ -value = 0.015). Under tau 1, higher brain entropy was also found in LLD than in MCI in right orbital part of medial frontal gyrus and left globus pallidus ( $p$ -value = 0.007 and 0.005).

**Conclusion:** Our result is consistent with prior hypothesis where higher brain entropy was found during early aging process as compensation. We found such phenomenon particular in left globus pallidus in LLD, which could be served as a discriminative brain region. Being a key region in reward system, we hypothesis such region may be associated with apathy and with unique pathway of cognitive decline in LLD. We will undertake subsequent analysis longitudinally in this cohort

**Key words:** resting-state fMRI, Late-life depression, Brain entropy, globus pallidus, cognitive decline

## **FC51: Alzheimer's Symposium: A Perspective from the Academy**

**Authors:** Florencia Velazquez-Morales

The World Health Organization (WHO) proclaimed September 21 as World Alzheimer's Disease Awareness Day and extended the observance to the entire month. Various awareness campaigns are being conducted around the world, with special emphasis on the importance of education to improve the quality of life for patients, families, and the community at large, and to eliminate stigma and ageism.

It is estimated that there are approximately 44 million people worldwide with some form of dementia, while in the United States it reaches 5.4 million. In Puerto Rico, it is estimated that there are approximately 60,000 people with Alzheimer's disease. An AARP study (2021) showed that there are over 500,000 caregivers of older adults, making Puerto Rico one of the top three countries with the largest aging population and the 6th country in the world. While in Latin America and the Caribbean there is a prevalence between 6.2 and 6.5 per 100 adults aged 60 years or older (WHO).

This health and social situation require an educated and empowered society to meet the challenges. Muñoz et. al (2023) conducted a qualitative study with caregivers and found that 91% of the participants stated that training would help them provide better care to the elderly. Social work is one of the main disciplines dealing with this social phenomenon and should therefore play a leading role in education and therapeutic intervention.

For the past five years, the Department of Social Work at Inter-American University, Metro Campus, has joined and supported the cause through the celebration of the Alzheimer's Symposium: A Perspective from the Academy. This event involves the entire university community, as well as the community at large, which includes caregivers, government and non-profit agencies, and professionals from various disciplines. There will be concurrent lectures, discussions among local and international professionals, a film forum, poster presentations, artistic expressions, and educational tables. The 6th Symposium will be held on September 20, 2024. The Symposium is

promoted through various media. This activity has generated alliances, recommendations and new educational projects that contribute to the well-being of older adults.

**Keywords:** Education, Alzheimer's, Caregivers, Academia, Stigma, Partnerships, Dementia, Elderly, Symposium, Aging, Quality of Life, Quality of Life, Puerto Rico

### **FC52: Development of a novel psychoeducational intervention promoting mental health in older adults: survey collection and curriculum design**

**Authors:** Silbersweig, Arielle; Pritchett, Cristina M; Gavaller, Monica; Oh, Hyungseok; Hershenberg, Rachel; Wise, Jocelyn; Le, Kendra; Blythe, Emma; Hermida, Adriana P

**Objective:** 1) To evaluate interest, logistics, and content for a curriculum to promote well-being in older adults by gathering data through surveys of nursing home populations. 2) To design a curriculum syllabus that can be carried out and shared by analyzing our survey data and combining it with evidence-based practices from the literature including positive psychiatry approaches and elements of different psychotherapies.

**Methods:** Long-term and short-term care patients from Budd Terrace and A.G. Rhodes nursing homes were recruited to participate in a survey. Categorical frequency calculations were used to evaluate participant interest and logistical preferences. Ranked scores and distribution columns were used to evaluate course content.

**Results:** 100 participants completed the survey. 55.1% expressed interest in attending this type of course. For class length, frequency, duration, and size, average preference was for 30 minutes, once a week, 2–4 weeks, and 6–10 people, respectively. Between pillars, in order of priority, preferences were: meaning in life (ranked score 215), mindfulness (198), and social connection (157). Within the meaning in life pillar, preferences in order of priority were: gratitude for life lived (268), life priorities (249), sources of meaning (235), and goals (188). Within the mindfulness pillar, preferences in order of priority were: emotional stability (272), focusing awareness on the present moment (261), acknowledging and accepting thoughts and feelings (240), and self-compassion (187). Within the social connection pillar, preferences in order of priority were: increasing opportunities for social connections (266), enhancing social support (245), improving social skills (240), and addressing worries about social situations (169).

**Conclusion:** By combining logistical and content preferences from our population sample with evidence-based practices from the literature, we have developed a psychoeducational course to promote mental health in older adults, centered around three pillars: meaning in life, mindfulness, and social connection. A curriculum syllabus complete with course description, learning objectives, weekly topics/timelines, materials needed, notes, and handouts will be included with the final manuscript. The handouts can also be selected and distributed outside of a course context, such as outpatient clinics or inpatient settings, and curriculum elements can be incorporated into group or individual therapy.

### **FC53: A Big BIT: Utilizing Behavioral Intervention Team Approaches to Improve the Care of Older Adults on Med-Surg Units**

**Authors:** Lucy Easler, PhD, RN, Juliet Glover, MD, Deborah Hurley, PhD, Nell Payne, RN, Beth Smith, MSN, RN, Shilpa Srinivasan, MD, Jessica Anderson, MD

**Background:** Older adults may exhibit behavioral disturbance while medically hospitalized. Restlessness, removing medical devices, or wandering may lead to sentinel events including falls, elopements, or violence. The traditional consultation-liaison model addresses challenging or high-risk behaviors but is often reactive and may lead to missed opportunities. The interdisciplinary Behavioral Intervention Team (BIT) was implemented on the campus of Prisma Health Baptist Hospital in Columbia, SC to address and anticipate the need for behavioral health support on medical units.

**Methods:** A pilot BIT program was implemented in September 2019. Two psychiatric nurses were embedded on med-surg units as a part of medical and psychiatric interdisciplinary teams. After obtaining approval from the Prisma Health Institutional Review Board, a retrospective review was conducted to evaluate the correlation between BIT interventions and patient safety events. Two time periods were examined: six months with early-BIT efforts and six months with expanded-BIT efforts. Medical records and safety reports were reviewed, and statistical analysis was conducted in SAS Enterprise Guide 8.3. Statistical significance was based on associated p-values ( $p < 0.05$ ).

**Results:** Of admitted patients during the study period ( $N = 1413$ ), almost half were age 65+. Pre-existing psychiatric diagnoses were present in 58% of cases with mood, anxiety, and neurocognitive disorders being most common. A majority of patients were on psychotropic medications during both study periods; however, there was a significant decrease in the use of psychotropic medications with expanded-BIT efforts (71.2% vs 61.3%,  $p < 0.001$ ). In comparing early-BIT efforts to expanded-BIT efforts, significant reductions in workplace aggression (6.7% vs 2.3%,  $p < 0.001$ ), use of restraints (5.8% vs 3.4%,  $p = 0.034$ ) and need for security (4.2% vs 0.8%,  $p < 0.001$ ) were observed. Geriatric subgroup analysis demonstrated a significant decrease in the need for security only (4.6% vs 0.6%,  $p < 0.001$ ).

**Conclusions:** Engaging BIT significantly reduced aggression, restraint use, and security interventions. As psychiatric comorbidities continue to impact overall treatment plans, care teams will need to prevent high-risk behaviors and events. Implementing an interdisciplinary BIT is feasible and effective in reducing negative outcomes.

#### **FC54: Post-pandemic Characterization of Social Isolation and Perception of Loneliness in a Group of Chilean older people**

**Authors:** Christine M. Gierke, Carlos Navarro, Melissa Martinez

**Introduction:** This study explores the psychological effects of the COVID-19 pandemic on elderly Chileans, focusing on the role of social isolation (SI), loneliness, depressive symptoms, and pandemic-related concerns. With 150 participants, our cross-sectional descriptive study revealed significant relationships between SI, loneliness, depressive symptoms, and gender differences in their experiences. Despite no longer being in a restrictive phase of the pandemic, the findings highlight the interconnectedness of these factors and their ongoing impact on the mental health of the elderly population.

**Methodology:** Utilizing a cross-sectional descriptive design, this research involved 150 elderly participants from Santiago, Chile. We assessed SI, loneliness, depressive symptoms, and pandemic-related concerns using the Steptoe Social Isolation Index, the Three-item UCLA Loneliness Scale, the Yesavage Geriatric Depression Scale

(GDS-15), and a Likert scale for pandemic concern, respectively. Statistical analyses were conducted using JAMOVI 2.36, employing chi-square tests, U-Mann Whitney tests, and Spearman correlations.

**Results:** Our findings indicate a significant portion of participants experienced SI (42%) and loneliness (26%), with women showing higher frequencies of loneliness and depressive symptoms. Significant correlations were found between SI and loneliness, and both were closely linked to depressive symptoms. Interestingly, a significant negative correlation was observed between pandemic-related concerns and loneliness, suggesting an active coping mechanism among the elderly.

### **FC55: An Initial Evaluation of Online Meaning-Centered Groups (OMG) to Promote Psychological Well-Being and Reduce Distress in Older Adults**

**Authors:** Marnin J. Heisel, Danielle Sinden, & the OMG Project Team

#### **Objectives:**

1. Consider the role of Meaning in Life (MIL) in potentially promoting psychological resiliency and well-being and reducing suicide risk among older adults;
2. Describe Online Meaning-Centered Groups (OMG) for older adults experiencing loneliness, social isolation, and/or psychological distress; &
3. Discuss preliminary findings from a study of OMG for Canadian Retirement Home and Community residents 60 and older, both during and following the COVID pandemic.

**Key words:** Meaning-Centered Groups; Online Interventions; Psychological Well-Being; Upstream Suicide Prevention

**Background:** The COVID pandemic had a negative impact on the health and well-being of older adults. As older adults additionally have among the highest rates of suicide globally, psychological distress due to lockdowns, fear of infection, and reduced access to mental healthcare and social supports threatened to increase suicide risk, necessitating innovative interventions. Online Meaning-Centered Groups (OMG) were designed to address this concern.

**Objectives:** To summarize initial findings of an on-going study to adapt, initially evaluate, and disseminate OMG for older adults potentially at-risk for suicide by virtue of loneliness, social isolation, or pandemic-related psychological distress.

**Methods:** Participants included English-speaking, cognitively-intact, Canadians 60 years and older, experiencing loneliness, social isolation, or psychological distress. Participants of all sexes and genders were recruited primarily via online advertisements for an 8-session, online course of OMG, adapted from Meaning-Centered Men's Groups (MCMG; Heisel et al., 2020) for men struggling with the retirement transition. Participants completed an online eligibility assessment, and were administered a demographics form, a cognitive screen, and measures of functioning, psychological risk and resiliency factors, and suicide ideation and behaviour. Eligible participants were invited to take part in a course of OMG, and to additionally complete online pre-, mid-, post-group, and 2-month follow-up assessments of psychological risk and resiliency factors and group process.

**Results:** Two courses of OMG have been delivered to date ( $n = 15$ ), with a third planned for Spring-Summer 2024. Participants reported high satisfaction with group ( $M = 44.7$ ,  $SD = 3.4$ , on a 0-50 Group Satisfaction scale), a strong

working alliance with group facilitators (Working Alliance Inventory-Short Form:  $M = 5.1/7$ ,  $SD = 0.8$ ), and experienced significant pre-post reductions in hopelessness (Beck Hopelessness Scale:  $t_{(13)} = 2.16$ ,  $p \leq 0.05$ ) and anxiety (Geriatric Anxiety Scale:  $t_{(13)} = 2.18$ ,  $p \leq 0.05$ ). Improvements in other negative psychological factors and in psychological well-being have not yet reached statistical significance.

**Conclusions:** Preliminary findings suggest potential benefit in OMG in promoting social connection and reducing psychological distress among older adults experiencing social isolation and/or psychological distress. These and other findings will be discussed in the context of the need for accessible psychological interventions and the importance of promoting meaning in life to enhance psychological well-being among older adults.

### **FC56: Effects of a mindfulness meditation intervention with neurofeedback on psychological well-being, cognition, and quality of life in older adults experiencing loneliness - a pilot randomized controlled study**

**Authors:** Eugenie Roudaia, Nicole D. Anderson, Malcolm Binns, Morris Freedman, Nasreen Khatri, Linda Mah, Gibbs Jr Ollivierre, Helena Teng, Konka Paul, Allison B. Sekuler

**Objective:** Loneliness is a modifiable risk factor for depression and dementia in older age. Validated interventions are needed to mitigate the impact of loneliness in older adults. Some evidence suggests that mindfulness meditation may reduce stress, improve mood and cognitive function, and may also impact loneliness per se. Many meditation apps offer an accessible way to meditate at home. However, robust research is needed to assess the benefits of meditation using this technology for older adults. Muse is a meditation app that analyzes brain signals during meditation and provides users with real-time neurofeedback on their level of focus.

**Methods:** We conducted a pilot, randomized controlled trial to establish the acceptability and feasibility of a remote, mindfulness intervention using Muse in older adults, and to obtain preliminary data on its impact on mood and cognition. Twenty-six adults reporting feeling lonely were enrolled and randomized to an 8-week Muse-based meditation (MM) or a brain-training active control (BT) program. The MM group completed meditation sessions with real-time neurofeedback and guided meditation sessions using Muse. The BT group completed cognitively challenging games on the commercially available Peak app and listened to podcasts. The groups were matched on the amount of interactions with study staff and total program duration. Outcome measures included standardized self-report scales of loneliness, stress, depression, well-being, quality of life, sleep disturbance, resilience, and mindfulness. Staff blinded to program assignment administered cognitive tasks of episodic memory, working memory, and sustained attention, as well as a breath counting task. Assessments were taken at Pre, Mid, and Post intervention, and after a 2-month and 4-month (4M) follow-up period.

**Results:** Participants found both programs engaging and the remote assessments were feasible. The MM group showed a greater improvement in depressive symptoms, and psychological and physical QOL, compared to the BT group, at Post and at 4M.

**Conclusion:** A Muse-based mindfulness program is an acceptable and accessible intervention for older adults. A large-scale randomized trial is warranted to evaluate the efficacy of this intervention in this group.

### **FC57: Geriatric abuse in India: Unveiling a hidden crisis**

**Authors:** Achyut Trivedi, Mahima Kinha Jr.

**Objective:** Geriatric abuse, a grave violation of human right affecting older adults, remains a silent epidemic in India. This study provides an insight into the prevalence, manifestation, contributing factors and societal implications of geriatric abuse within the Indian context. Drawing from scholarly research and empirical evidence it aims to illuminate the multifaceted nature of this phenomenon and advocate for urgent attention from policy makers, healthcare professional, and society at large. Despite its pervasive nature, geriatric abuse in India often goes unnoticed and unaddressed due to cultural norms, family secrecy and systemic neglect. The abuse may take various forms including physical, psychological, financial and neglect perpetrated by family members, care givers or institutional staff. Factors such as socio- economic disparities, gender inequalities and cultural attitudes towards aging intersect to exacerbate the vulnerability of older adults to abuse. Understanding the socio cultural dynamics shaping geriatric abuse its essential for effective intervention and prevention strategies, traditional values emphasizing familial duty and respect for elders coexist with modern challenges such as urbanization, migration, and changing family structures impacting elder care and support networks furthermore, inadequate legal protections, limited access to healthcare, and stigma surrounding aging compound the challenges faced by older adults experiencing abuse. Addressing geriatric abuse in India requires a comprehensive approach encompassing legislative reforms community mobilization and capacity building initiatives strengthening reforms legal frame works to protect elder rights tailored to the needs of older adults and promoting awareness campaigns to challenge ageism and stigma are critical steps to creating a society where older adults age with dignity and safety.

**Methodology:** We used interview and survey methodology to derive a representative sample (based on race gender education) in order to measure elder abuse in west Rajasthan (India) based population. Participants undergone interviewed via in OPD, IPD by taken case history, about a variety of abuse/mistreatment types and mistreatment risk factors in addition to question regarding health, social support and demographic. Specific elder abuse categories included emotional, physical, sexual, financial and neglect.

**Result:** Results of this study will be discussed during my presentation at the conference.

**Conclusion:** In conclusion, geriatric abuse in India represents a profound violation of human rights and a moral imperative for action by acknowledging the complexities of this issue and fostering collaboration among stake holders, India can strive towards a future where older adults are respected, empowered and free from abuse and neglect.

### **FC58: Positive and negative social connections and brain health in the UK Biobank data**

**Authors:** Suraj Samtani, Gowsaly Mahalingam, Wei Wen, Prof Henry Brodaty, Prof Perminder S. Sachdev

Centre for Healthy Brain Ageing (CHeBA), Discipline of Psychiatry and Mental Health, Faculty of Medicine and Health, UNSW Sydney

**Background:** Social connections are important for brain health. We explored the associations between positive and negative social connections and the rate of decline in brain health with ageing.

**Methods:** We analysed UK Biobank data from 5704 adults aged 40+ (Wave 1  $M_{age} = 54.12$ , 51.19% female) with brain scans at waves 2 and 3. Predictor variables were positive (current household size, visits to friends/family, community engagement, having a confidante) and negative (loneliness, violence in romantic relationships, or belittling in romantic relationships) social connections at baseline. Outcome variables were brain volumes (total grey & white matter, hippocampus, amygdala) and white matter health (DDF- white matter integrity, white matter hyperintensities, PSMD- a marker of microstructural white matter changes) at waves 2 and 3. We ran linear mixed models controlling for age, sex, intracranial volumes (for brain volume analyses), physical activity, depression, alcohol use, smoking, education, pollution, hearing loss, BMI and hypertension.

**Results:** Having a greater household size was associated with a slower rate of decline in volumes of total white matter (3160.08, 95% CI: 418.75, 5888.47), right amygdala (43.18, 95% CI: 14.70, 71.02), left hippocampus (62.96, 95% CI: 18.20, 108.04), and right hippocampus (61.02, 95% CI: 15.39, 108.36), and white matter integrity/DDF (0.0014, 95% CI: 0.00047, 0.0022). Loneliness was associated with a slower rate of decline in the left amygdala (81.48, 95% CI: 19.59, 145.91).

**Conclusion:** In a large UK based sample, we found that living with more people was associated with slower decline in white matter volumes and integrity, and hippocampal volumes. Living with others may promote brain reserve and memory function. Loneliness was associated with slower decline in the left amygdala volume, which is associated with processing of aversive and fearful stimuli. This echoes previous findings indicating that people with depression and anxiety may experience less shrinkage in the amygdala. Our results highlight the importance of encouraging people to live with others, such as in intergenerational households. We also need to address loneliness at a population level to promote healthy brain ageing.

### **FC59: Implementation and feasibility testing of a co-designed palliative dementia intervention: Empowering Better End of life Dementia Care Framework (EMBED-Care Framework)**

**Authors:** Clare Ellis-Smith, Juliet Gillam, Jesutofunmi Aworinde, Ayesha Dar, Ankita Bhojwani, Kristiam Herrera Carrasco, Annabel Farnood, Sarah Crabtree, Nathan Davies, Catherine Henderson, Janet Anderson, Charlotte Kenten, Elizabeth Sampson, Richard Harding, Catherine Evans

**Objective:** People with dementia live with unmet needs due to dementia and other conditions. The EMBED-Care Framework is a co-designed app-delivered intervention involving holistic assessment, evidence-based decision-support tools and resources to support its use. Its intention is to empower people with dementia, family and practitioners to assess, monitor and manage needs. We aimed to explore the feasibility and acceptability of the EMBED-Care Framework and develop its underpinning programme theory.

**Methods:** A six-month single arm mixed-methods feasibility and process evaluation, underpinned by an initial programme theory which was iteratively developed from previous studies. The settings were two community teams and two long term care facilities (LTCFs). People with dementia and family were recruited to receive the intervention for 12 weeks. Practitioners were recruited to deliver the intervention for six months. Quantitative data included candidate process and outcome measures. Qualitative data comprised interviews, focus groups and observations with people with dementia, family and practitioners. Qualitative and quantitative data were analysed separately and triangulated at the interpretation phase.

**Results:** Twenty-six people with dementia, 25 family members and 40 practitioners were recruited. Practitioners in both settings recognized the potential benefit for improving care and outcomes for people with dementia, and to themselves in supporting care provision. Family in both settings perceived a role in informing assessment and decisions about care. Family was integral to the intervention in community teams but had limited involvement in LTCFs. In both settings, embedding the intervention into routine care processes was essential to support its use. In community teams, this required aligning app functionality with care processes, establishing processes to monitor alerts, and clarifying team responsibilities. In LTCFs, duplication of care processes and limited time to integrate the intervention into routine care processes, affected its acceptability.

**Conclusion:** A theoretically informed co-designed digital intervention has potential to improve care processes and outcomes for people with dementia and family, and is acceptable to practitioners in community teams. Further work is required to strengthen the intervention in LTCFs to support integration into care processes and support family involvement. The programme theory detailing key mechanisms and likely outcomes of the EMBED-Care Framework is presented.

### **FC60: Comparison of Clinical Outcomes with Electroconvulsive Therapy when using Methohexital vs Propofol for Treatment-resistant Depression**

**Authors:** Adrian I. Espiritu, Yousief Fahd, Sruthi Nunna, Mervin Blair, Jonathan Santo, Lili Meng, Melissa Quaye, Iouri Rybak, Richard O'Reilly, Amer M. Burha

**Objective:** Evidence is limited on the comparative impact of specific anesthetic agents used in electroconvulsive therapy (ECT) on outcomes in treatment-resistant depression (TRD). Our study aimed to compare the efficacy of methohexital vs propofol by examining the number of treatment sessions needed to transition from acute to maintenance ECT (NTS) (i.e., change from minimum of two to one or fewer treatments per week), missed treatment sessions, and seizure durations.

**Methods:** We conducted a retrospective cohort study via chart review of patients with TRD receiving ECT from October 2017 to October 2019. We included adult patients ( $\geq 18$  years) diagnosed with TRD who received at least six ECT sessions. We analyzed our data using multilevel structural equation modeling (MSEM).

**Results:** We included 149 patients (36.9% or 55/149 were  $\geq 65$  years): 54 were methohexital-treated (mean age  $59 \pm 17$  years; 41% male) and 95 were propofol-treated (mean age  $55 \pm 17$  years; 36% male). No significant differences between methohexital vs propofol groups were found in NTS (mean  $\pm$  SD:  $12.6 \pm 6.6$  vs  $11.5 \pm 6.1$ ;  $p = 0.3$ ) and missed treatment sessions ( $0.63 \pm 1.2$  vs  $0.69 \pm 1.2$ ;  $p = 0.75$ ). Patients receiving methohexital manifested longer motor ( $25.5 \pm 10.6$ s vs  $19.9 \pm 8.4$ s;  $p < .001$ ) and electroencephalographic (EEG) seizure durations ( $42 \pm 17.5$ s vs  $31.9 \pm 13.1$ s;  $p < .001$ ) vs propofol. MSEM revealed that (1) methohexital was associated with longer first-session seizure durations (motor seizure:  $b = 6.28$ ,  $p < 0.05$ ; EEG seizure:  $b = 8.03$ ,  $p < 0.05$ ) and more rapid decline in motor seizure duration across sessions ( $b = -.38$ ,  $p < .05$ ) over propofol, while accounting for relevant covariates; (2) regardless of anesthesia used, faster reductions in seizure durations across sessions predicted fewer NTS; and (3) methohexital was associated with fewer NTS adjusted for covariates which were driven by two indirect effects: (a) sharper decline in motor duration across sessions and (b) the association between a sharper decline in motor duration across sessions with fewer missed treatments. The outcomes were not influenced by age, indicating that the findings are relevant to older adults.



**Conclusions:** Our findings suggest that methohexital had fewer NTS and longer seizure durations than propofol, indicating better ECT outcomes using methohexital for TRD. Further research is warranted to verify methohexital's effects on cognitive and additional recovery outcomes within clinical practice.

### **FC61: The role of community pharmacists in improving help seeking for dementia among Black African and Caribbean people in the UK**

**Authors:** Oma Iyoko, Dr Alys Griffiths, Dr Sarah Jane Smith, Prof Claire Surr

**Background:** Black, Asian and Minority Ethnic (BAME) people continue to present later to specialist care centres and services for memory problems. This poses significant concerns due to implications for poorer treatment outcomes and higher treatment cost among this population. While diverse interventions to support improved help seeking for dementia have been proffered for other BAME communities, there is a paucity of research involving the Black African and Caribbean community. Furthermore, whilst community health professionals like the doctors and community nurses have been involved in such interventions, no previous research has considered the role of the community pharmacist. This research explored opportunities for community pharmacists to support improved help seeking for dementia among the Black African and Caribbean population.

**Methods:** This research was a multi-stage project involving surveys and interviews with community pharmacists and Black Africans and Caribbeans as participants.

**Results:** Knowledge, attitude and beliefs around dementia and its causes appeared to be major barriers to help seeking among the Black African and Caribbean population. For example, beliefs that dementia is caused by 'the spirits' and dementia is a repercussion for past wrongdoing and therefore not amenable to medical intervention. The community pharmacists believe they are well positioned to spot initial signs of dementia among their clients and are therefore willing to offer help seeking support to this population.

**Conclusions:** To offer intervention for timely help-seeking for dementia, a culturally tailored dementia education for the Black African and Caribbean population should be considered. In addition, training on the impact of cultural beliefs on help seeking for dementia should be considered for the community pharmacists.

### **FC62: Restless legs syndrome and ferritin levels in older people with dementia: a cross-sectional study**

**Authors:** Madson Alan Maximiano-Barreto<sup>1,2</sup>; Érica Dayanne Meireles Leite<sup>1,2</sup>, Letícia Lambert<sup>3</sup>, Victor Oliveira Wer celens<sup>4</sup>; Alan Luiz Eckeli<sup>1</sup>; Marcos Hortes Nisihara Chagas<sup>1,2</sup>

1. Neurociences and Behavioral Sciences Department, University of São Paulo, Ribeirão Preto, SP, Brazil
2. Study and Research Group in Mental Health, Cognition and Aging, University of São Paulo, Ribeirão Preto, SP, Brazil
3. Bairral Psychiatry Institute, Itapira, SP, Brazil
4. Hospital São Silvestre, Aparecida de Goiânia - GO, Brazil

**Objective:** To evaluate the relationship between Willis-Ekbom Disease/Restless Legs Syndrome and iron deficiency anemia in older people with dementia.

**Method:** A cross-sectional study was conducted with 70 older people diagnosed with dementia and restless leg syndrome in a Psychogeriatric outpatient clinic in a city in the interior of São Paulo, Brazil. The older people filled

in instruments of sociodemographic characterization, measures to evaluate the Restless Legs Syndrome, neuropsychiatric symptoms, sleep quality, sleepiness and cognition. Blood data were also collected levels of creatinine, ferritin, red blood cells, hemoglobin and hematocrit, the latter collected in the patients' medical records.

**Results:** The sample consists mostly of older people with mixed dementia (i.e., Alzheimer's disease + Vascular Dementia), with 39% of female patients and mean age of 77.80 years (9.36). This study identified a frequency of 15.7% of Restless Legs Syndrome. Patients with the syndrome present more frequency of neuropsychiatric symptoms, worse sleep quality, higher index of body mass and lower levels of ferritin ( $p < .05$ ).

**Conclusion:** A frequency of 15.7% was identified for restless leg syndrome among patients with dementia. In addition, patients with the syndrome have ferritin deficiency.

**Keywords:** dementia, aging, ferritin, restless legs syndrome; Willis-Ekbom disease

### **FC63: Linguistic Validation of the Agitation in Alzheimer's Screener for Caregivers (AASC™), a novel tool based on the IPA definition of agitation in cognitive disorders**

**Authors:** Malaak Brubaker,<sup>1</sup> Emily Bratlee-Whitaker,<sup>2</sup> T. Michelle Brown,<sup>2</sup> Alejandro Partida,<sup>3</sup> Iwona Bucior,<sup>1</sup> Mehul Patel,<sup>1</sup> Carolyn Clevenger<sup>3</sup>

1. Otsuka Pharmaceutical, Princeton, NJ
2. RTI Health Solutions, Research Triangle Park, NC
3. Language Scientific, Medford, MA
4. Emory University, Atlanta, GA

**Objective:** The International Psychogeriatric Association (IPA) definition of agitation in cognitive disorders set standard guidance for recognizing agitation behaviors in research and clinical care. Patients and caregivers were involved in developing a vocabulary to describe these behaviors and, per the IPA, additional studies will offer insights into application of the criteria in diverse cultural and linguistic populations. Based on the IPA criteria, the Agitation in Alzheimer's Screener for Caregivers (AASC™) was developed in collaboration with clinical experts, patient advocates, and caregivers of individuals with Alzheimer's dementia to support caregivers and healthcare professionals (HCPs) in communication and recognition of agitation in Alzheimer's dementia. This study aims to translate and linguistically validate the AASC™ in Spanish, Simplified Chinese, and Traditional Chinese in US populations.

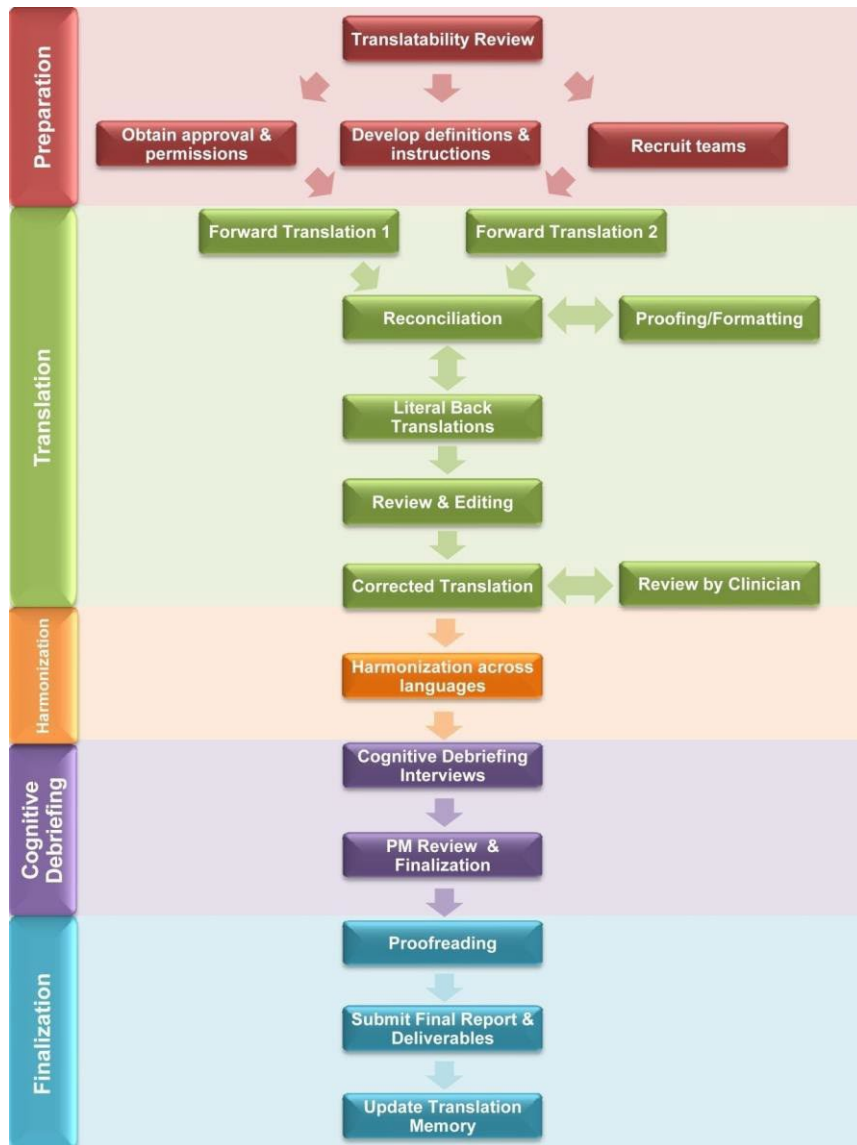
**Methods:** According to best practices outlined by the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) (**Figure 1**), linguistic validation of the AASC™ includes translation and validation through cognitive debriefing interviews for each target language. This process applies rigorous methods to obtain translations that are conceptually relevant to the original tool, culturally relevant to each target language, and easily understood by those to whom the tool will be administered. For each target language, lay subjects ( $n = 5$ ) over 40 years old and representative of the target population (e.g., reside in the US and fluent in Spanish, Traditional Chinese, or Simplified Chinese) will be recruited for cognitive debriefing.

**Results:** The specific methodology will be used to produce the linguistically validated versions of the AASC™ tool in Spanish, Traditional Chinese, and Simplified Chinese. Translatability review, forward and back translations,

clinician and linguist review, harmonization, and cognitive debriefing will ensure the accuracy and consistency of the translated tool. If needed, the original tool language will be updated to account for cultural differences.

**Conclusions:** The AASC™ is the first screener developed for agitation in Alzheimer’s dementia based on the IPA criteria. Translation and linguistic validation of the AASC™ in Spanish and Traditional and Simplified Chinese aim to ensure clear and culturally relevant translations for each target language. Ongoing and future studies will optimize the effectiveness and cultural acceptance of the AASC™ tool.

Figure 1. Study Design



PM, project manager

Cultural adaptation and cultural relevance are assessed during linguistic validation steps, including cognitive debriefing interviews with the lay population for each target language.

## **Poster Session 1:**

### **P1: Coping strategies used by caregivers of patients with Alzheimer's disease**

**Authors:** Alexandre Magno Frota Monteiro<sup>1</sup>, Marcia Cristina Nascimento Dourado<sup>1</sup>

1. Centro de Doença de Alzheimer, Instituto de Psiquiatria, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brasil

**Introduction:** Coping strategies are intentional, cognitive, and behavioral actions aimed at controlling the negative impact of a stressful event or situation.

**Objective:** The objective of this study was to evaluate the coping strategies used by caregivers of patients with Alzheimer's disease and the development of strategies to reduce dysfunctional behaviors by patients.

**Methods:** The sample for this study included 33 caregiver-patient dyads diagnosed with Alzheimer's disease. Data were collected at the Alzheimer's Disease Center - ADC, at the Institute of Psychiatry of the Federal University of Rio de Janeiro. Patients were assessed for cognition, quality of life, disease awareness, functionality, and depression. Caregivers were assessed for coping, resilience, depression, anxiety, burden, and locus of control. Caregivers also provided information about mood, neuropsychiatric symptoms, severity of decline, activities of daily living, and quality of life of the patients.

**Results:** 82% of caregivers were female, with a mean age of 56.36 (SD = 14.31). Caregivers showed high levels of resilience, with an average score of 141.9 (SD = 12.54), moderate level of coping strategies 66.55 (SD = 12.86), moderate level of locus of control 67.4 (SD = 10.3), moderate level of burden 37.61 (SD = 18.1), low level of anxiety 6.64 (SD = 5.91), and low level of depressive symptoms 8.91 (SD = 8.30). Patients had a mean age of 74 years (SD = 9.4) and 54.5% of patients were male. Patients had an average score of 18.45 on cognition assessment, 60% had mild dementia, low depression index 9.48 (SD = 5.75), moderate levels of neuropsychiatric symptoms 26.45 (SD = 23.63), partially compromised disease awareness 10.8 (SD = 5.31), and high quality of life indices 33.21 (SD = 5.8). The results show a positive correlation between coping strategies and clinical variables. The use of coping strategies associated with high levels of resilience and locus of control may have contributed to the low levels of anxiety, depression, and burden among caregivers.

**Conclusion:** Coping strategies focused on emotion seem to be more effective for patients with mild dementia, while problem-focused coping strategies yielded better results for patients with moderate dementia.

### **P2: Analysis of resilience levels in caregivers of patients with young and late onset Alzheimer's disease**

**Authors:** Alexandre Magno Frota Monteiro<sup>1</sup>, Marcia Cristina Nascimento Dourado<sup>1</sup>

1. Centro de Doença de Alzheimer, Instituto de Psiquiatria, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brasil

**Introduction:** Resilience is a dynamic process involving the interaction between risk and protective factors that act to modify the effects of adverse life events. Understanding the resilience of caregivers of patients with AD and its predictors is essential for the development of intervention strategies aimed at solutions that can contribute to the improvement of their emotional disorders, such as anxiety, stress, and depression.

**Methodology:** 93 dyads of patients diagnosed with AD, where 60 (64.5%) dyads had Late-onset AD (LOAD) and 33 (35.5%) dyads had Young-onset AD (YOAD). Patients were assessed for: quality of life (QoL), disease awareness, and depression. Caregivers were assessed for: resilience, depression, anxiety, burden, and QoL. Additionally, caregivers provided information about mood, neuropsychiatric symptoms, dementia severity, and patients' activities of daily living.

**Results:** Caregivers showed moderate levels of resilience, with an average score of 140 (SD = 13.20), moderate level of burden 28.94 (SD = 14.74), low level of anxiety 7.56 (SD = 7.44), and low level of depressive symptoms 8.17 (SD = 6.34). Patients had an average cognition score of 18.81, 63.4% had mild dementia, low depression index 8.02 (SD = 5.78), low index of neuropsychiatric symptoms 16.11 (SD = 14.47), and partially compromised disease awareness 9.06 (SD = 5.12).

**Conclusion:** No relationship was found between caregivers' resilience and patients' clinical condition, indicating that resilience seems to be associated with caregivers' individual characteristics. Interventions such as psychoeducational groups, behavioral or religious counseling, may stimulate or develop resilience characteristics in caregivers who exhibit avoidance or denial behaviors regarding the patient's diagnosis.

**Keywords:** resilience, Alzheimer's, caregivers

### **P3: Analysis of the different coping styles adopted by caregivers and their relationship with the manifestation and intensity of psychological and behavioral symptoms in patients with young-onset Alzheimer's disease**

**Authors:** Alexandre Magno Frota Monteiro<sup>1</sup>, Marcia Cristina Nascimento Dourado<sup>1</sup>

1. Centro de Doença de Alzheimer, Instituto de Psiquiatria, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brasil

**Introduction:** Young-onset AD (YOAD) affects people aged 65 years old or younger with greater initial loss of cognitive abilities, more significantly on attention, visuospatial function, motor- executive functions, and language.

**Methodology:** 30 dyads, People with AD – caregivers, were evaluated. People with YOAD were assessed for: disease awareness, and depression. Caregivers were assessed for: depression, anxiety, coping, and burden. Additionally, caregivers provided information about mood, neuropsychiatric symptoms, dementia severity, and patients' activities of daily living.

**Results:** Caregivers showed moderate level of burden 38.94 (SD = 14.74), low level of anxiety 9.11 (SD = 9.8), moderate level of coping strategies 65.71 (SD = 11.7), and mild level of depressive symptoms 10.72 (SD = 8.8). People with AD had an average cognition score of 15.27, 50% had moderate dementia rating (CDR=2), mild depression index 12.35 (SD = 5.4), moderate index of neuropsychiatric symptoms 36.2 (SD = 23.3), and partially compromised disease awareness 9.06 (SD = 5.12). Coping strategy total score of caregivers was positively correlated with their cognition. Problem-focus is positively correlated with caregivers' years of education, cognition and inversely correlated anxiety. The coping strategies were not correlated with the clinical variables of people with YOAD. Dysfunctional and emotional- focus did not have significant correlations with the clinical variables of people with YOAD or their caregivers.

**Conclusion:** Most caregivers, likely experiencing significant disruption in their personal lives, were similar-aged spouses to people with AD. Problem-focused coping strategies appear effective for caregivers, indicating that better cognitive health and higher education levels may enable them to use planning and active coping strategies to manage dysfunctional behaviors. Self-distraction was observed as a dysfunctional coping strategy, suggesting an association with anxiety and depression in caregivers, though our results do not confirm a causal relationship. Future studies with larger dyads samples should explore the relationship between coping strategies, clinical variables in patients with YOAD, and their caregivers, aiming to develop interventions to assist caregivers more effectively.

**Keywords:** Coping, caregivers, Young-onset Alzheimer's disease

#### **P4: Why Doesn't Grandma Remember Me? Exploring the World of the Brain and Memory through Educational Activities and Cognitive Stimulation**

**Authors:** Alexandre Magno Frota Monteiro<sup>1</sup>, Marcia Cristina Nascimento Dourado<sup>1</sup>

1. Centro de Doença de Alzheimer, Instituto de Psiquiatria, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brasil

**Introduction:** This book aims to help children grasp the concept of Alzheimer's disease and its impact on our loved ones using simple, accessible language and engaging educational activities.

**Methodology:** The information will be presented using themes that capture children's interest, such as magic and superheroes, and will be reinforced through activities including word searches, code-based tasks, synonym games, word syllable exercises, planning activities, scrambled words, word puzzles, basic math problems, open-ended questions, and discussions about grandparents. It will address potential behavioral changes like forgetfulness, confusion, and agitation, and provide suggestions on how to cope, such as remaining calm, offering comfort, paying attention, and communicating clearly and simply. Throughout the book, the significance of family bonds will be emphasized, encouraging care and affection to strengthen connections. Even if a person with Alzheimer's doesn't recognize the child, they can still feel the love and support.

**Conclusion:** This book promotes values of respect, inclusion, and patience in the face of Alzheimer's disease, underscoring the importance of empathy and understanding regardless of the challenges it presents.

**Keywords:** Alzheimer's Awareness, Child-Friendly Education, Cognitive Stimulation, Family Connection

#### **P5: Managing patients with dementia and comorbid psychiatric disorders: a literature review and case series**

**Authors:** Alvin Keng, MD, FRCPC, Michael Kirzner, Morris Freedman, MD, FRCPC

**Objective:** Patients with dementia (PWD) benefit from interdisciplinary care. Depression is a well-known risk factor for the progression of neurocognitive impairment and dementia; other psychiatric disorders (i.e. anxiety, post-traumatic stress disorder, bipolar disorder, psychotic disorders) also may confer an increased risk for dementia. PWD may also present with behaviours and psychological symptoms that overlap with psychiatric disorders. Our aim is threefold: (1) Review the current literature on managing psychiatric comorbidities in PWD.

(2) Present an illustrative case series of PWD with psychiatric comorbidities. (3) Introduce a model of care on our Behavioural Neurology Unit (BNU) for treating PWD with psychiatric comorbidities.

**Methods:** Our BNU is a 20-bed quaternary inpatient unit for difficult-to-treat behaviours related to dementia. Psychiatric consultation is readily available to clinicians and often times for PWD with psychiatric comorbidities. We review best practices in managing these patients. We present a case series of PWD with psychiatric comorbidities predating their diagnosis of dementia who have significant behavioural and psychological symptoms and have failed other settings.

**Results:** Current guidelines for PWD do not discuss the management of psychiatric and neurologic comorbidities in detail. Among 26 cases, we highlight the judicious use of anticonvulsants, lithium, clozapine, and nabilone in PWD. We also demonstrate the importance of interdisciplinary care with primary care, neurology, psychiatry, and allied health support.

**Conclusion:** Dementia care is challenging and requires individualized attention and interdisciplinary collaboration. These challenges are augmented when dealing with psychiatric comorbidities. We advocate for increased attention and creative solutions to address these complex cases.

## **P6: Strengthening Dementia Care: Advancing Through ADI Accreditation for Excellence and Acknowledgment**

**Author(s):** Amalia Fonk Utomo

**Background:** The ADI Accreditation Programme, launched in December 2020, aims to support all Alzheimer and dementia associations and other organizations, in improving care for people living with dementia. By providing a standards-based approach to knowledge and skills, ADI establishes benchmarks that program providers must adhere to. Successful completion of an evaluation allows carers, trainers, and program providers to earn ADI Accreditation, indicating that they have reached the required global standard for their training and learning activities, including culturally appropriate context to improve care quality. ADI Accreditation is open to ADI members, as well as other organizations including universities and training colleges.

**Activities:** Our Global Review Panel (GRP) Members consists of multi-discipline, cultural and regional experts in the global dementia field. Successful completion of an evaluation process: initial application, evaluation report, virtual/in-person or hybrid visit from our Global Review Panel Members, the program or providers can earn ADI Accreditation. The first provider to be accredited was Kiang Wu Nursing College (KWNC) of Macau on January 25, 2021. The pilot project involved discussions on external and internal governance, trainers and program committees, students, graduates, and other stakeholders. A 3-day virtual visit to KWNC in September, including evaluation, involved carers, trainers, students, and collaboration with other organizations and people living with dementia, followed by a final review by the Global Review Panel in October and November.

Silverado Memory Care Communities became the first program to be accredited for their Dementia Care Program on December 22, 2022. In-person visits took place on August 16-17, 2022, involving trainers, stakeholders, family members, caregivers, associates, and staff.

University of Bradford in the UK became the first university in UK/Europe to be accredited their Centre for Dementia Applied Science on December 22, 2022. In-person visits took place on June 20-21 June 2023 , involving trainers, stakeholders, family members, caregivers, associates, and staff.

Wicking Dementia Research and Education Centre at the University of Tasmania received their accreditation after virtual visit on 29-30 August 2023. involving trainers, stakeholders, associates, and staff.

As of 2024 Dementia Australia Is currently undergoing the accreditation process along with some new potential opportunities.

**Results:** In 2 years, Kiang Wu Nursing College of Macau, Silverado Memory Care, University of Bradford and University of Tasmania received ADI Accreditation. Kiang Wu Nursing College of Macau received 5 times more applicant.

Throughout the program, there has been an increase in awareness and understanding of the importance of high-quality culturally contextualized carer training achieved through accreditation.

### **P7: Implementation of Cognitive Stimulation Therapy for People with Dementia in Nursing Homes in Brazil**

**Authors:** Amanda Pelinson Tiago, MD, Marco Aurélio Romano-Silva, Edgar N. Moraes, Maria Aparecida C. Bicalho, Jonas Jardim De Paula, Bernardo Viana

**Introduction:** Dementia and cognitive impairment are major causes of admission to Nursing Homes. These conditions also lead to caregiver burden and decrease quality of life. Cognitive Stimulation Therapy (CST) is an evidence-based psychosocial intervention for people with dementia, recommended and implemented in many countries, including Brazil.

**Objective:** The aim of the current study is to explore the feasibility and preliminary results of CST protocol in nursing homes for elders with cognitive impairment or dementia in Brazil.

**Methods:** Older adults with cognitive impairment were invited to participate in this study. Thirteen participants from two nursing homes were assessed at baseline with the Cambridge Cognitive Examination (CAMCOG), Cornell Scale for Depression in Dementia (CSDD), Pfeffer Functional Activities Questionnaire, Katz Activities of Daily Living Scale, Quality of Life in Alzheimer's Disease (QoL-AD) and Clinical Dementia Rating Scale Sum of Boxes (CDR-SOB). They were assigned to Usual Care / Waiting List and followed up for 7 weeks, being reassessed at the end of this period. Then, they underwent 14 CST sessions throughout 7 weeks and were reassessed at the end of the protocol. Repeated Measures ANOVA was selected to assess differences in time. This study was approved by the Ethics committee of the Federal University of Minas Gerais.

**Results:** There were no dropouts from the study, the CST protocol has shown to be feasible to be implemented in nursing homes. We found that the CST protocol had no statistically significant impact in CDR-SOB ( $F = 1.21$ ,  $p = 0.315$ ), CSDD ( $F = 1.61$ ,  $p = 0.221$ ), CAMCOG ( $F = 0.914$ ,  $p = 0.414$ ), but showed a statistically significant change in the QoL-AD scale ( $F = 3.618$ ,  $p = 0.042$ ). However, Mauchly's test of sphericity is violated, and since it may lead to increased type I error, it is still premature to define a positive outcome.



**Conclusion:** These preliminary results are consistent with the previous literature, suggesting that the CST could be a useful psychosocial intervention to improve the quality of life of people with dementia living in nursing homes. Nevertheless, more participants need to be enrolled to address further conclusions.

### **P8: Depression, diabetes, and healthcare services use – Brazilian Longitudinal Study of Aging (ELSI-Brazil, 2015-2016)**

**Authors:** Ana Keinert, MD, Matheus Ghossain Barbosa, PhD, Maria Fernanda Lima-Costa, Cleusa Pinheiro Ferri

**Objectives:** Low- and middle-income countries face increasing burden of noncommunicable chronic diseases due to rapid population aging. The objective of this study is to estimate the association of co-occurring depression and diabetes with healthcare services utilization in the Brazilian population aged 50 years and older.

**Methods:** This is an analysis using baseline data of the ELSI-Brazil study. Measurements used were self-reported previous diagnosis for diabetes and a cut-off point of 4 on the CES-D-8 score for depression. Any medical consultations, specialist consultations and hospitalizations in the previous 12 months were assessed for measuring health services use. Logistic regression was used to estimate the association of having depression, diabetes, or both, compared to having none of the conditions with healthcare services utilization.

**Results:** In a final sample of 8303 participants, the adjusted odds ratios (95%CI) in the depression only group (27.9%), in the diabetes only group (9.7%), and in the depression and diabetes group (5.8%), for any medical consultations were 1.2 (1.01-1.42), 3.39 (2.4-4.79) and 3.12 (1.82-5.35); for specialist consultations, 1.05 (0.91-1.21), 1.34 (1.07-1.68) and 1.13 (0.86-1.49); and for hospitalizations, 1.42 (1.1-1.84), 1.42 (1.02-1.96) and 3.1 (2.12-4.54), respectively. All models were adjusted for sex, age, education, marital status, insufficient physical activity, current drinking and smoking, obesity and number of other diseases and conditions.

**Conclusion:** Those with diabetes seemed more likely to have any or specialized medical consultations. However, those with the depression and diabetes comorbidity were more likely than any other group to have been admitted to a hospital in the last year, which is distressing and costly. Screening for depression could be incorporated into diabetes usual care to reduce related complications and hospitalizations.

**Funding:** This study did not receive any funding. Authors Ferri and Lima-Costa are recipient of CNPq research productive fellowship.

**Keywords:** depression; diabetes; comorbidity; health services use; aging.

### **P9: Computer-based Neuropsychological Rehabilitation in Latin America**

**Authors:** Alvarado Rodas Andrea Cristina, Psy.D., M.Sc., PhD student<sup>1,2</sup>, Orellana Palacios Hernán Mateo, M.D., M.Sc., PhD student<sup>1,2</sup>

1. Universidad de Salamanca, España.

2. Centro MAIOR Ecuador. Centro de Especialidades del Adulto Mayor.

**Summary:** Globally, older adults grow faster than the rest of the population (United Nations et al., 2019). Ecuador predicts 2054 this group will represent 18% of the population. Cognitive and functional impairment affects quality

of life of individuals and their families. Conditions such as dementia have increased, with almost 100,000 people affected in Ecuador.

Pharmacological treatments have modest efficacy for these problems (Buckley & Salpeter, 2015). In developed countries there are efforts to use non-pharmacological interventions (Klimova et al., 2016). In this context, computer-based cognitive interventions are considered a therapeutic tool to treat neurocognitive disorders. Benefit of using technology is that interventions are more accessible, flexible (Maldonado, 2016) and cost-effective (Gooding et al., 2016). Herrera et al. (2012) summarize a superiority outcomes over conventional cognitive rehabilitation in many aspects. Among them, use of portable devices allows bringing interventions to rural areas or homes (Brando et al., 2017).

In Spain, work is being done on it and there are studies associated with its usability and effectiveness. GRADIOR computer-based neuropsychological rehabilitation is a program for people with neurological etiologies. This one stands out from the rest, as it is exclusively for professionals. Allowing them to design, supervise and adapt the cognitive intervention based on their decisions, subsequent to the assessment of other cognitive, emotional and social aspects involved in the rehabilitative process, not only based on the objective results on the patient's performance (Toribio-Guzmán et al., 2018).

This has led to the demand for a Neuropsychological Rehabilitation program that is accessible, parameterizable and adapted to the population of ECUADOR.

To meet this need, a doctoral thesis is being carried out in collaboration with CENTRO MAIOR Ecuador Centro de Especialidades del Adulto Mayor. Spanish program of Neuropsychological Rehabilitation has been tested in its population.

The study has been divided into different phases. A qualitative phase with focus group methodology in which health professionals from Ecuador participated. A phase of adaptation of the Spanish program to the Ecuadorian culture and currency. It is now in experimental phase (35 participants) with MCI and Mild Dementia. It is proposed to present the study, with a clinical case.

## **P10: Possible Lamotrigine-Induced Mania in a patient Epilepsy and perictal psychotic symptoms**

**Authors:** Andrea C. Casas

**Summary:** Lamotrigine is an antiepileptic and mood stabilizing drug. Among its adverse effects, the induction of mania has been described. We present the case of a 59-year-old man diagnosed with epilepsy since youth, with perictal psychotic symptoms effectively treated with haloperidol. The patient was treated with lamotrigine for over five years and presented symptoms of mania after two years of receiving it at moderate doses and being free of seizures. The symptoms improved with the lamotrigine switch. Previous cases of lamotrigine-induced manic symptoms have been predominantly observed in individuals with mood disorders, with only a few reported in children undergoing treatment for epilepsy. Further studies are necessary to elucidate the potential risk factors and the neurobiological mechanisms.

### **P11: Clozapine-Induced Thrombocytopenia: Whether or Not to Continue Clozapine Treatment when Platelet Count Falls**

**Authors:** Arielle Silbersweig, Cristina Pritchett, Claudio S. Bondulich, Adriana Patricia Hermida

**Objective:** To determine if and when to continue clozapine in patients with clozapine-induced thrombocytopenia.

**Methods:** A case report and literature review of a geriatric patient with Parkinson's disease (PD) psychosis, on longstanding treatment with clozapine with recent development of thrombocytopenia, is presented.

**Results:** 85-year-old male with a history of PD complicated with sialorrhea, constipation, levodopa-induced dyskinesia, rapid eye movement sleep behavior disorder, neurocognitive impairment, and PD psychosis who follows up with the Emory Brain Health Center. Medications include carbidopa-levodopa, clozapine, donepezil, and rasagiline. He reports distressing delusional jealousy and egodystonic visual hallucinations. He has tried multiple antipsychotics with insufficient response. He has been on clozapine for nearly 10 years with moderate efficacy. His current dose is 62.5mg daily. Absolute neutrophil counts have been normal, but he developed thrombocytopenia. Though he had normal platelets at baseline, his platelets fell to 134,000/ $\mu$ L and have gradually decreased within a year, most recently to 82,000/ $\mu$ L. He has been asymptomatic without easy bleeding or bruising. His clozapine dose has remained the same with ongoing laboratory monitoring. He follows with his primary care doctor and was referred to hematology.

**Conclusion:** The literature on clozapine-induced thrombocytopenia is limited. Incidence is variable and ranges from 0.083%-8.2% in larger samples. Most cases occur within the first 18 weeks of clozapine initiation. It is generally transient and self-resolving, usually lasting under 13 weeks, though a case report noted it to last up to 40 months. It is imperative to have hematologic baselines. The manufacturer recommends discontinuing the drug when platelet counts fall below 100,000/ $\mu$ L, resuming therapy when they return to normal, and permanently discontinuing if this reoccurs. UK guidelines recommend that if platelet counts fall below 50,000/ $\mu$ L, clozapine should be discontinued, with monitoring frequency increased. Therapy can be resumed once platelet counts normalize and if asymptomatic. Special caution must be taken in geriatric patients who are prone to fall and balance-related injuries.

### **P12: Buddhist temples are promising social resources in secular community-based integrated care (3): The Effects of Buddhist Sutra chanting on swallowing function and mental health.**

**Authors:** Ayako Edahiro, DDS., PhD., Chiaki Ura, Tsuyoshi Okamura, Ryosho Shoji, Yukan Ogawa, Akinori Takase, Misato Hayakawa, Maki Shirobe, Fumiko Miyamae, Chiaki Ando-Ohmura, Yoshiko Motohashi

**Objective:** Swallowing dysfunction is a significant health concern among older individuals, prompting widespread efforts to prevent it. While articulation training using repeated syllables is a common approach, maintaining motivation and habituating to the practice can be challenging, particularly for those facing mental hurdles.

In contrast, the ancient practice of sutra chanting, which has been embraced for centuries, holds potential for improving well-being by offering mental tranquility through the recitation of meaningful Buddhist words, including non-daily vocabulary. While the health benefits of these vocalization techniques remain understudied, they are believed to have positive effects from a geriatric medicine standpoint.

**Methods:** Our intervention program consisted of 60-minute sessions held at a temple per week for 7 weeks, including homework tasks. Sessions involved group discussions, preparatory exercises, multiple recitations of the Heart Sutra with loud voices, and talks by a Buddhist priest. This one-arm intervention study targeted older community residents. Pre- and post- assessments, including mental health questionnaires and measurements of swallowing and oral function, were conducted. Paired t-tests were used to compare the data. Post-intervention interviews were conducted by a psychologist and a priest. This study was approved by the Ethics Committee of Taisho University.

**Results:** Eighteen participants, with an average age of  $76.1 \pm 8.2$  years (8 males, 10 females), showed significant improvements in maximum phonation time, hyoid bone displacement during swallowing, tongue pressure, and mental health. Interview narratives revealed improvements in mental well-being attributed to sutra chanting, including the alleviation of death anxiety and attainment of mindfulness.

**Conclusion:** The study suggests that the sutra-chanting program, consisting of immersive temple experiences, exposure to Buddhist priest talks, and training in breathing techniques and vocalization through sutra chanting, may contribute to improved mental and physical health.

### **P13: Validation of a Catalogue of Videos with a Positive Emotional Impact to Support Communication, Empathy and Involvement with the Healthy Elderly People**

**Author(s):** Barbara Delacourt<sup>1,2</sup>, Raed El-Aoun<sup>2</sup>, Omar Graja<sup>2</sup>, Ahmed Rebei<sup>2</sup>, Santiago Hidalgo<sup>3</sup>, Nizar Bouguila<sup>4</sup>, Ana Inés Ansaldo<sup>1,2</sup>

1. École d'orthophonie et d'audiologie, Faculté de Médecine, Université de Montréal, Montréal, QC, Canada
2. Centre de recherche de l'Institut universitaire de gériatrie de Montréal (CRIUGM), Montréal, QC, Canada
3. Laboratoire CinéMédias, Faculté des arts et des sciences, Université de Montréal, Montréal, QC, Canada
4. Concordia Institute for Information Systems Engineering, Université Concordia, Montréal, QC, Canada

**CONTEXT:** In Canada, 30 % of seniors experience social isolation, which is associated with cognitive decline. Studies suggest that co-viewing videos with positive emotional content promotes communication and social engagement (Ansaldo et al., 2021). Seniors spend approximately 4 hours per day watching television. It is important to explore the impact of this fact on communication and global behavior in seniors and their proxies.

**Objectives:** To identify the emotions experienced by dyads, and the parameters modulating them, as well as communication.

**Methods:** 19 dyads of elderly individuals watched 20 videos with positive emotional content. During co-viewing, facial expressions, heartbeat and respiratory rates were measured. After each video, participants completed a questionnaire measuring emotions (PANAS), and a semi- structured interview. Quantitative and qualitative analyses were conducted.

**Results:** Significant results in favor of positive emotional valence for each video were observed following quantitative analyses (t-test) of the PANAS; participants primarily felt enthusiastic, interested, and inspired. Analyses of semi-structured interviews confirm that dyads experienced positive emotions particularly with nature, animals, and children related videos. Most of the dyads perceived co-viewing as a means to promote

communication and evoke memories. Machine learning supported analysis show a correlation between screen content type, and participants' engagement as reflected by pupil dilation, and respiratory rate stabilization.

**DISCUSSION:** The use of adapted video content encourages person-centered communication and empathy, thereby contributing to the maintenance of social engagement among the elderly.

**Conclusion:** These results provide evidence for the benefits of using adapted video content to promote communication in old age and point to innovative avenues in the study of co-viewing effects on communication and engagement in individuals living with major neurocognitive disorders.

#### **P14: How does dorsolateral prefrontal cortex plasticity differ across the Alzheimer's disease spectrum?**

**Authors:** Bernadette Mdawar; François Genadry; Sanjeev Kumar; Reza Zomorodi, Maryse Gad; Kanza Naveed; Daniel M. Blumberger; Corinne Fischer; Zafiris J. Daskalakis; Benoit H. Mulsant; Bruce G. Pollock; Tarek K. Rajji

**Objectives:** Patients with mild cognitive impairment (MCI) employ compensatory cognitive processes to maintain independence in day-to-day functioning as compared to patients with Alzheimer's dementia (AD). The dorsolateral prefrontal cortex (DLPFC) supports cognitive compensation in normal aging and MCI. Using Paired Associative Stimulation combined with Electroencephalography (PAS-EEG) we have previously shown that patients with AD have impaired DLPFC plasticity compared to healthy control (HC) individuals. The aim of this study is to examine whether DLPFC plasticity in individuals with MCI is preserved compared to those with AD and HC, serving as a potential mechanism underlying cognitive compensation in MCI.

**Methods:** We analyzed a combined cross-sectional data of 47 AD, 16 MCI, and 40 HC participants from three different studies that assessed their DLPFC plasticity using PAS-EEG. PAS-EEG assesses DLPFC plasticity via the induction of Long Term Potentiation (LTP)-like activity, thereby referred to as PAS-LTP. Using multiple regression, we compared PAS-LTP in MCI to PAS-LTP in AD and HCs, after adjusting for age and gender.

**Results:** Among the 47 participants with AD (mean [SD] age = 75.3 [7] years), 29 were women and 18 were men; among the 16 participants with MCI (mean [SD] age = 74.8 [6] years), 11 were women and 5 were men; and among the 40 HCs (mean [SD] age = 76.4 [5.1] years), 22 were women and 18 were men. After adjusting for age and gender, there was an impact of diagnostic group on PAS-LTP [ $F(2,95) = 4.19$ ,  $p = 0.018$ , between-group comparison  $\eta^2 = 0.81$ ]. Post-hoc comparisons showed that participants with MCI had a higher PAS-LTP (mean [SD] = 1.31 [0.49]) than those with AD (mean [SD] = 1.09 [0.28]) (Bonferroni corrected  $p = 0.042$ ) but not different from PAS-LTP in HCs (mean [SD] = 1.25 [0.33]) (Bonferroni corrected  $p = 1.0$ ).

**Conclusion:** Our findings indicate that plasticity is preserved in the DLPFC among individuals with MCI, supporting the hypothesis that DLPFC plasticity contributes to cognitive compensation towards delaying progression to AD. Thus, further enhancement of longer preservation of DLPFC plasticity in individuals with MCI could further delay the onset of AD in this population.

### **P15: A narrative review comparing guardianship procedures for people with mental disabilities of countries from six continents**

**Authors:** Carolina A. Koehne, Giovanna C. P. Moro, Mariana S. L. Corte Real, Roberta Nascimento, Carla V. Carvalho, Marco Aurélio Romano-Silva, Edgar N. Moraes, Maria Aparecida C. Bicalho, Izabela G. Barbosa, Bernardo De M. Viana

**Introduction:** Throughout the course of the dementia, patients generally need a guardian to protect their rights due to the severity of their mental disabilities. The laws and procedures for guardianship for people with disabilities have been updated in several countries based on the UN Convention on the Rights of Persons with Disabilities promulgated in 2006.

**Objective:** To compare the law and procedures for guardianship for people with mental disabilities of twelve countries from six continents.

**Methods:** Narrative review searching for civil codes/guardianship procedures, date of promulgation, scope of the guardian authority, preferred guardian, duration of the guardianship.

**Results:** Most countries predominantly promulgated their laws after the year 2000, being half of them updated after 2006. Most countries have two types of guardianship scopes: one concerning financial affairs and the other concerning personal affairs (such as welfare and medical care). Generally, guardianship concerning financial matters is the first to be established. In addition, most countries maintain the ward's right to vote. In five out of twelve countries, there is an order of preference for choosing the guardian, being the spouses and adult children the preferred guardians. All these countries have the possibility of temporary guardianship. Three countries have a maximum period for guardianship with the possibility of renewal, while all others have indefinite time for guardianship duration. Only France explicitly grants the right to the ward to make medical decisions within guardianship procedures. Brazil's Civil Code restricts guardianship to financial matters, whereas the Civil Procedure Code requires judges to define the scope of guardianship's authority for each of the activities of the civil life. Since both codes hold equal authority, judges typically determine the extent of guardianship on a case-by-case basis.

**Conclusion:** Half of the nations have updated their laws after the promulgation of the UN Convention on the Rights of Persons with Disabilities. Dementia is expected to increase worldwide and further discussion concerning the rights of people with dementia is still needed. Although there is no ideal legal framework, the comparison of procedures from different countries may lead to valuable insights for further discussions and assessments.

### **P16: Hippocampus Atrophy due to Treatment Resistant Depression in an Older Adult**

**Authors:** Davi N. F. Fernandes, Gabriel H. B. Paulino, João Pedro C. M. Farias, Paulo Henrique T. Do Prado, Marco Aurélio Romano-Silva, Maria Aparecida C. Bicalho, Bernardo De M. Viana

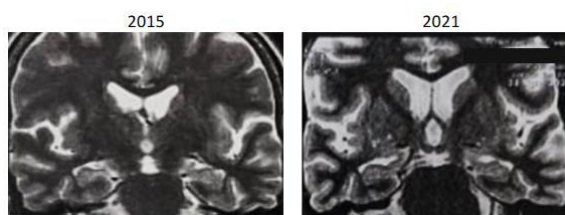
**Introduction:** Recurrent major depressive disorder (MDD) has been associated with cognitive impairment and hippocampus atrophy. Additionally, in older adults it is related to increased dementia risk, as well as being dementia's prodromal syndrome.

### Case Report:

A 68-year-old female patient, with a history of MDD beginning in 2014, has been under the care of the Psychogeriatrics service at HC-UFMG. In 2015, she was 60-year-old and underwent her first MRI scan. At that time, the Medial Temporal Atrophy Score (MTA) was 2 and she had a treatment resistant depression (TRD). She began multimodal treatments, including ECT, achieving only partial remission. Since then, the patient had recurrences of depression without the remission of cognitive impairment. In 2021, her MTA Score was still 2 with TDR symptoms. Currently, she is on Venlafaxine 150mg, Mirtazapine 30mg, Lithium 300mg, Olanzapine 5mg, Clonazepam 0.25mg and maintenance ECT every 45 days. The patient remains with cognitive impairment that leads to disabilities but had not significantly progressed. On the other hand, the main impact in functionality is related to depressive symptoms, especially to the loss of interest and apathy.

**Discussion:** This case stands out due to the combination of hippocampal atrophy at a relatively young age and severe depression with cognitive impairment that has not progressed to dementia in 9 years. Severe depression can lead to significant cognitive deficits, as well as, hippocampus atrophy. While depression is related to hippocampus atrophy, it has not been related to TRD in a review study with Voxel-Based Morphometry. Conversely, Alzheimer's Disease is related to MTA  $\geq 2$  scores, as well as depressive symptoms. MTA 2 in a person of 60 years of age is not considered normal. When combined with cognitive impairment, these findings are generally related to neurodegeneration. Since both MTA and cognitive deficits were relatively stable, the hypothesis of a cognitive impairment and hippocampus atrophy due to depression were more likely.

**Conclusion:** MDD leads to cognitive impairment in older adults, as well as hippocampus atrophy. Nevertheless, depression and age are important risk factors for dementia and, therefore, a progression to dementia due to a neurodegenerative disease is still possible.



### P17: Confirmatory Factor Analysis of the Cognitive Domains and Functional Assessment Questionnaire (CDFAQ)

**Authors:** João Vitor Da S. Viana, Aline S. De Souza, Isabelle De A. Maia, Caio P. Tavares, Giovanna C. P. Moro, Guilherme V. R. Da Costa, Alberto F. L. Rodrigues, Gabriela T. O. Engelmann, Marco Aurélio Romano-Silva, Maria Aparecida C. Bicalho, Jonas Jardim De Paula, Bernardo De M. Viana

**Background:** The Cognitive Domains and Functional Assessment Questionnaire (CDFAQ) assess cognitive and functional decline based on the DSM-5 criteria for Neurocognitive Disorders. Its accuracy has been assessed and was translated and validated into English. The informant version (CDFAQ-IV) is a 30-item questionnaire that assesses six cognitive domains with 5 items each: Complex Attention (CA), Executive Functions (EF), Learning and

Memory (LM), Language (L), Perceptual-Motor (PM) and Social Cognition. The development of CDFAQ-IV was based on the DSM-5 cognitive domains, but its factor analysis has not been done yet.

**Objectives:** To perform a Confirmatory Factor Analysis of the CDFAQ-IV to assess the six-factor cognitive domain model.

**Methods:** Older adults and their informants were invited to participate in this study. The CDFAQ-IV was applied in 292 older adults' informants. We used the JASP for a Confirmatory Factor Analysis based on Lavaan R Packages. The confirmatory factor analysis was chosen to manual six-factor model. This study was approved by the ethics committee of UFMG.

**Results:** Concerning model fitness in the confirmatory factor analysis the  $\chi^2$  was significant ( $p < .001$ ), standardized root mean square residual (SRMR) was .059 (accepted  $< .08$ ) and the goodness of fit index (GFI) .984 (accepted  $> .9$ ). However, the root mean square error of approximation (RMSEA) was marginal to the accepted fitness .066 (accepted  $< .06$ ) and the comparative fit index CFI was .839 under the accepted cutoff (accepted  $> .9$ ).

**Conclusion:** The six-factor model of the showed a good fit for three parameters, marginal for one and negative for the CFI. These results point to a convergence of the questionnaire and factors the DSM-5 cognitive domains. These are still preliminary results and we aim to increase our sample to further assess the confirmatory factor analysis.

### **P18: BDNF levels and affective disorders as a marker of vulnerability to developing cognitive impairment in the Chilean adult population**

**Authors:** Carolina E. Martin, PhD, Rodrigo F. Torres, Marco A. Barra, Yennyfer V. Arnancibia

**Summary:** Disorders related to progressive cognitive decline constituting an important cause of global death and disability-adjusted life years because conditions are also associated to impairment of several brain functions, psychological and behavioral changes, regardless of economic status. Brain-derived neurotrophic factor (BDNF) is a neurotrophin highly relevant in memory, learning and neuroplasticity processes in adults. The amount of plasma BDNF has been considered to partly reflect its secretion in the brain. Its deficiency is associated with affective disorders and neurodegenerative pathologies such as Alzheimer disease and Parkinson's disease.

The aim of this study was to identify quantifiable biomarkers (serum levels of BDNF) and clinical marker (state of depression and anxiety) that allow early detection of cognitive impairment risk. We made an analytic and transversal study with a representative sample ( $n:307$ ) of the population over 50 years old in the south of Chile (X region). We determine the cognitive condition of the population by applying cognitive functionality tests, such as the minimal status examination (MMSE) test and identify demographic and psychosocial characteristics that constitute impairment cognitive risk. Subsequently, we determined depression status (scale of Yesavage) and anxiety status (Beck inventory), and finally we made a quantitative determination of human BDNF at the blood level using ELISA technique.

Our results revealed that 26.7% of the participants exhibited some degree of cognitive impairment, being higher in women (55.7%) with average age of 70,7. A 18,2% of subjects manifested indicators of depression and 33,2% have a very high level of anxiety. The correlation analysis revealed a significant positive correlation between MMSE test ( $p < 0.001$ ) and both BDNF plasma levels ( $p < 0.001$ ) and education level ( $p < 0.001$ ) scores. The results



additionally indicated a negative correlation between cognitive functions and age range/anxiety state, suggesting low age level/high level of anxiety in subjects with more pronounced cognitive decline ( $p < 0.001$ ). In conclusion, the results of our study point towards decreases plasma BDNF levels and high levels of anxiety in cognitive impairment subjects compared with cognitive normal subjects, which may be due to the early and middle stages of neurodegeneration process.

### **P19: Screening for depression among older adults: a cross-sectional study in primary care in Brazil**

**Authors:** Carolina Godoy; Tassiane C. S. de Paula; Amanda E. G. Henrique; Matheus G. Barbosa; Cleusa Ferri

**Objective:** To estimate the proportion of older adults in primary care screening positive for depression and identify associated factors.

**Method:** A cross-sectional study was conducted involving 1,639 older adults (aged  $\geq 60$  years) from fourteen primary care units in a city of São José dos Campos in the state of Sao Paulo, Brazil, between December 2023 and April 2024. Depression was assessed using the Patient Health Questionnaire (PHQ-2), with a score  $\geq 3$  being considered to indicate the presence of depression. Logistic regression analyses were carried out to evaluate associations between sociodemographic characteristics (sex, age, marital status and employment) and health related variables (any chronic disease, alcohol consumption, and tobacco use) with a positive PHQ-2 score.

**Results:** The mean age of the 1,639 participants was 68.6 (SD  $\pm 6.2$ ; range: 60–95). The prevalence of a positive PHQ-2 score was 20.5%. Women, those with chronic diseases, and current smokers were more likely to have a positive score, (OR: 1.72; 95% CI: 1.33–2.23,  $p < 0.000$ ), (OR: 3.13; 95% CI: 1.50–6.56,  $p: 0.002$ ), and (OR: 1.55; 95% CI: 1.10–2.18,  $p: 0.011$ ), respectively. Those who had a job or a partner were less likely to have a positive score, (OR: 0.60; 95% CI: 0.37–0.97,  $p: 0.036$ ) and (OR: 0.71; 95% CI: 0.55–0.92,  $p < 0.010$ ), respectively. There were no significant associations between age and alcohol consumption and screening positive for depression.

**Conclusion:** Mental health services in primary care typically serve as the initial interface between the community and healthcare services. A substantial proportion of older adults screened positive for depression, which was particularly associated with being female, not having a partner, being unemployed, chronic diseases, and tobacco use. Despite the cross-sectional nature of this study, the results suggest that these factors may play a significant role in the development of depression in this population, and underscores the importance of considering these factors when designing interventions and prevention strategies aimed at the mental health of older adults.

### **P20: Evaluating xanomeline and trospium as a treatment for psychosis associated with Alzheimer's disease: design of the phase 3, ADEPT-1, relapse prevention study**

**Authors:** Carolyn Watson<sup>1</sup>, Jeffrey Cummings<sup>2</sup>, George Grossberg<sup>3</sup>, Minsu Kang<sup>1</sup>, Ronald Marcus<sup>1</sup>

1. Bristol Myers Squibb, Princeton, NJ
2. Department of Brain Health, University of Nevada Las Vegas School of Integrated Health Sciences, Las Vegas, NV
3. Department of Psychiatry & Behavioral Neuroscience, Saint Louis University School of Medicine, Saint Louis, MO

**Background:** There are no approved treatments for Alzheimer's disease psychosis (ADP). Xanomeline, a brain-penetrant M1/M4 preferring muscarinic receptor agonist, showed antipsychotic efficacy in placebo-controlled trials in subjects with AD [Bodick NC et al. 1997; DOI: 10.1001/archneur.1997.00550160091022]. Despite

promising efficacy, further development of xanomeline was limited by cholinergic adverse events. The investigational antipsychotic xanomeline and trospium combines xanomeline with trospium, an FDA-approved muscarinic receptor antagonist that does not measurably cross the blood-brain barrier. Trospium acts to mitigate the peripheral procholinergic side effects of xanomeline, providing a strategy for using xanomeline to stimulate brain muscarinic receptors with a decreased side effect burden. Unlike available antipsychotics, xanomeline and trospium have no direct dopamine D2-blocking activity, and as such, its safety and tolerability profile is different.

**Methods:** The phase 3 ADEPT-1 trial is a double-blind, flexible-dose, placebo-controlled randomized withdrawal study to evaluate the safety and efficacy of xanomeline and trospium in decreasing the risk of relapse in subjects with ADP. Subjects aged 55-90 years with moderate to severe psychosis associated with mild to severe AD (Mini-Mental State Exam score range 8-22) will be enrolled into the study. Subjects will receive single-blind xanomeline and trospium for 12 weeks. Each subject will be flexibly titrated to the maximum dose of xanomeline and trospium 200 mg xanomeline/20 mg trospium/day. At the end of the single-blind treatment, eligible responders will be randomized to either continue xanomeline and trospium or be switched to matched placebo for a 26-week double-blind treatment period. A responder is defined as a subject with a  $\geq 40\%$  decrease (improvement) on the Neuropsychiatric Inventory- Clinician: Hallucinations + Delusions (NPI-C: H+D) score compared with baseline (day 1) and a Clinician Global Impression–Change (CGI-C) score of 1 or 2 (very much improved or improved).

**Results:** The primary endpoint of the study, time from randomization to relapse during the double-blind, randomized withdrawal treatment, will be evaluated by survival analysis using Kaplan-Meier methodology. The study started in August 2022 and will randomize approximately 200 subjects.

**Conclusion:** The trial design of the ADEPT-1 study is an efficient way to assess the potential for xanomeline and trospium to provide clinically meaningful benefit in preventing the return of ADP in patients who have responded to xanomeline and trospium.

## **P21: Buddhist temples are promising social resource in secular community-based integrated care (2): Peer support, spiritual care, and grief care for caregivers at the Buddhist temples caregiver cafés**

**Authors:** Chiaki Ura, Tsuyoshi Okamura, Akinori Takase, Yukan Ogawa, Ryosho Shoji

**Objectives:** In an era marked by a 100-year life expectancy, nearly everyone may eventually become a caregiver to a family member or someone close, yet caregiver support remains insufficient in Japan. Outside the government's comprehensive community-based integrated care system, Buddhist temples are notable for supporting caregivers of individuals with dementia at home. To evaluate the rationale, feasibility, strengths, and fairness of using temples as a community resource within a community-based integrated care system, it is crucial to critically analyze views from secular healthcare professionals familiar with these activities. This study aims to explore the characteristics and potential of caregiver cafés hosted in Buddhist temples from the perspective of staff members involved in secular community-based integrated care system.

**Methods:** Initially, a preliminary questionnaire survey was administered to 13 priests at Jodo Shu temples that host caregiver cafés to ascertain the current status of these cafés and explore potential collaboration routes with public organizations for future research. Subsequently, semi-structured interviews were conducted with 15 staff members from public organizations involved in community-based integrated care, such as community-based integrated support centers, social welfare councils, and NPOs, who participate in caregiver cafés at Buddhist temples.

**Results:** All temples were found to cooperate with public institutions involved in community- integrated care. Thematic analysis led to the identification of 20 subcategories from 150 discourses. These subcategories, which had similar content, were further consolidated into a single category and ultimately grouped into four major categories: temples as social resources, temples and priests leveraging their strengths, familiar temples open to the community, and fair temples.

**Conclusions:** The findings suggested that temples have significant potential to integrate into community-based care systems and play crucial roles in supporting Japan's super-aged society.

## **P22: Treatment-resistant depression and risks of suicide and natural mortality in Taiwanese elderly patients with major depressive disorder**

**Authors:** Chih-Ming Cheng<sup>1,2,3</sup>, Mu-N Liu<sup>1,2,3</sup>, Chia-Fen Tsai<sup>1,2,3</sup>, Shih-Jen Tsai<sup>1,2,3</sup>, Mu-Hong Chen<sup>1,2,3</sup>

1. Institute of Brain Science, School of Medicine, National Yang-Ming Chiao-Tung University, Taipei, Taiwan
2. Division of Psychiatry, School of Medicine, National Yang-Ming Chiao-Tung University, Taipei, Taiwan
3. Department of Psychiatry, Taipei Veterans General Hospital, Taipei, Taiwan.

**Objective:** Depression is the second most prevalent mental illness among the elderly. Nonetheless, treatment-resistant depression (TRD) is prevalent among the elderly; one-third of elderly patients with major depressive disorder (MDD) who received antidepressant treatment failed to achieve remission. Although there have been several studies regarding the associations between MDD and increased mortality and suicidal risk, studies between TRD and mortality/suicidal risk in the elderly still remains limited. In this national cohort study, we examined the association between TRD, non-TRD MDD, and non-depression with all-cause mortality, accident mortality, and suicide mortality.

**Methods:** For this retrospective longitudinal analysis on the entire population, the National Health Insurance Research Database of Taiwan, which comprises claims data from a lifetime insurance program and provided comprehensive medical inpatient and outpatient information categorized by ICD-9-CM and ICD-10. The National Mortality Registry offered information regarding mortality resulting from all causes, natural causes, suicide, and accidents. A cohort of  $\geq 60$ -year-old patients, including both those with and without MDD, was observed between January 2003 and December 2017. Individuals were classified as TRD if they had undergone a minimum of two distinct antidepressant trials within the current episode's two-year duration and dose, as documented in the prescribing records. Adjusted hazard ratios (aHRs) and 95% confidence intervals (CIs) were calculated for mortality risk utilizing Cox regression models.

**Results:** Among those  $>60$  years old, after adjusting with sex and comorbidities, TRD was associated with increased risk of suicide (aHR 7.4, 95% CI [5.6-9.8]; MDD without TRD 4.4 [4.1- 4.6], compared with non-MDD group). Similar risk of accident mortality was observed among three groups (TRD aHR 1.3 [0.9-1.9]; MDD without TRD 0.9 [0.9-1.0], compared with non-MDD group). Surprisingly, TRD might presented lower mortality risk of natural mortality than the non- MDD group (TRD aHR 0.8 [0.7-0.8]; MDD without TRD 0.9 [0.8-0.9], compared with non-MDD group).

**Conclusion:** The suicide mortality among elderly patients with TRD is higher in comparison to non-MDD patients; nevertheless, accident mortality does not appear to have increased and the natural mortality rate is reduced. The lower mortality may reflect patient selection, and the contributing factors need further evaluation.

### **P23: Characteristics of older adults with domestic squalor in Japan: a cross-sectional study**

**Authors:** Daiki Taomoto<sup>1</sup>, Takashi Suehiro<sup>1</sup>, Yuto Satake<sup>1</sup>, Naomi Nakamuta<sup>1</sup>, Maki Hotta<sup>1</sup>, Maki Suzuki<sup>2</sup>, Hideki Kanemoto<sup>1, 3</sup>, Kenji Yoshiyama<sup>1</sup>, Toyoko Miyoshi<sup>4</sup>, Kazue Kashiwagi<sup>4</sup>, Kazue Shigenobu<sup>2, 4</sup>, Mamoru Hashimoto<sup>1, 5</sup>, Manabu Ikeda<sup>1</sup>

1. Department of Psychiatry, Osaka University Graduate School of Medicine, Suita, Osaka, Japan
2. Department of Behavioral Neurology and Neuropsychiatry, United Graduate School of Child Development, Osaka University, Suita, Osaka, Japan
3. Health and Counseling Center, Osaka University, Osaka, Japan
4. Asakayama General Hospital, Sakai, Osaka, Japan
5. Department of neuropsychiatry, Kindai University Faculty of Medicine, Osakasayama, Osaka, Japan

**Objective:** Domestic squalor (DS) is related to physical problems, living alone, problems for their family and neighbors, and mental illness, the most common of which is dementia. Early intervention for DS is important; however, methods to detect and treat older adults with DS remain unclear. This study aimed to clarify the methods of early intervention in older adults with DS.

**Methods:** The Initial-phase Intensive Support Team for Dementia (IPIST) is a multidisciplinary outreach team that provides intensive initial assessment and support for people living at home with suspected dementia in Japan. We distributed a questionnaire to 50 IPISTs that had reported experience of dealing with many “complex cases” in our previous nationwide survey, asking them to provide detailed information on two “complex cases” that were extremely difficult to approach or link to medical or long-term care. The questionnaire consisted of questions regarding sociodemographic characteristics, clinical assessments, referral sources, and reasons for complexity. We compared the results of the questionnaire between cases with and without DS (DS+ vs. DS-) and between cases with DS who lived alone and those who lived with family (DS+ living alone vs. DS+ living with family).

**Results:** We received responses from 33 IPISTs and collected data from 70 complex cases. DS was selected as the reason for complexity in 24 cases. Fourteen DS+ cases lived alone. DS+ cases referred by the family (8.3%) were significantly fewer than DS- cases (54.3%). In DS+ cases, the most common referral sources were neighbors and welfare commissioners. The proportion of cases having self-neglect were significantly more in DS+ (87.5%) than in DS- (13.0%). DS+ cases living alone were significantly younger (mean  $\pm$  SD; 72.9  $\pm$  7.3) than those living with family (80.0  $\pm$  6.7). Family members living with DS+ cases also had issues including mental illness or maltreatment.

**Conclusion:** This study revealed that most older adults with DS experience self-neglect and a lack of supportive family members. A comprehensive approach to both older adults with DS and their families is important for early intervention, and therefore IPISTs that have a multidisciplinary team with an outreach function would be useful.

### **P24: Quality of life of family carers of people living with dementia: Review of systematic reviews of observational and intervention studies**

**Author(s):** Déborah Oliveira<sup>1,2</sup>, Fabiana Araújo Figueiredo da Mata<sup>3,4</sup>, Aimee Aubeeluck<sup>5</sup>

1. Universidad Andrés Bello, Faculty of Nursing, Doctorate Programme in Nursing Science, Chile.
2. Millennium Institute for Care Research (MICARE), Chile.
3. Universidade Federal de Sao Paulo (UNIFESP), Faculty of Medicine, Department of Psychiatry, Brazil.
4. Social Sustainability and Responsibility Centre, Hospital Alemão Oswaldo Cruz (HAOC), Brazil.
5. University of Nottingham, Faculty of Medicine & Health Sciences, School of Health Sciences, United Kingdom.

**Objective:** Family members are the primary source of support for the growing number of people living with dementia (PLWD) worldwide. However, caring for a person living with dementia can have detrimental impacts on the carer quality of life (QoL). This review of systematic reviews was aimed at exploring the factors associated with the QoL of family carers of PLWD and interventions aimed at improving their QoL.

**Methods:** Several health-related databases (PUBMED, Psycinfo, Google Scholar and COCHRANE) were consulted in November 2022. Nineteen systematic reviews were included, and their methodological quality was assessed via AMSTAR-2.

**Results:** Nineteen systematic reviews published from 2014 to 2022 were included, of which three assessed the factors associated with the QoL of carers and 16 assessed the impact of interventions on family carer QoL and other outcomes. Several intrinsic and extrinsic factors associated with carer QoL were identified and included dementia symptoms and its care demands, provision of formal support, relationship quality between carer and PLWD, carer physical and mental health, positive psychological traits, and age-specific needs. Systematic reviews of interventions showed promising, yet modest and heterogeneous effects, with no one-fits-all strategy that can improve the QoL of all carers. For this reason, person-centred and outcome-focused approaches have been called for, as well as more qualitative studies exploring the negative as well as positive experiences of QoL among carers. Evidence also points out to the importance of using dementia specific QoL scales instead of generic QoL scales so that relevant caregiving aspects affecting carer QoL can be considered

**Conclusions:** Evidence suggests the need for a person-centred approach to improving carer QoL, considering individual and contextual needs as well as the continuum and progressive nature of dementia care. Future research should be focused on understanding how to best implement and measure person-centred care approaches to carer QoL, including cost- effectiveness. More qualitative studies are necessary to explore carer negative and positive experiences of QoL.

## **P25: Effects of iSupport for reducing burden and improving the mental health of informal caregivers of people living with dementia in Brazil: Results of a randomized controlled trial**

**Authors:** Luana Aparecida da Rocha<sup>1</sup>; Sofia Cristina Iost Pavarini<sup>1</sup>; Ana Carolina Ottaviani<sup>1</sup>; Diana Quirino Monteiro<sup>1</sup>; Camila R. Ferreira Campos<sup>1</sup>; Larissa Corrêa<sup>1</sup>; Ludmyla C. de Souza Alves<sup>1</sup>; Gustavo Carrijo Barbosa<sup>1</sup>; Gabriela Martins<sup>1</sup>; Elizabeth Joan Barham<sup>1</sup>; Fabiana Orlandi<sup>1</sup>; Keila C. Tindade da Cruz<sup>2</sup>; Aline C. Martins Gratão<sup>1</sup>; Déborah Oliveira<sup>3,4</sup>

1. Universidade Federal de São Carlos – Brasil

2. Universidade de Brasília – Brasil

3. Universidad Andrés Bello, Faculty of Nursing, Doctorate Programme in Nursing Science, Campus Viña del Mar, Chile.

4. Millenium Institute for Care Research (MICARE), Santiago, Chile

**Background:** Most people living with dementia rely on their family members for the care and support they need. However, unpaid care can lead to multiple negative impacts on the wellbeing and mental health of carers.

**Objective:** The objective of this study was to evaluate the effects of iSupport-Brasil (an online, psychoeducational program) on perceptions of burden and on the mental health of informal caregivers of people living with dementia.

**Method:** A randomized controlled trial was carried out from January 2023 to April 2024 in Brazil. A total of 162 individuals were randomly allocated to an intervention group (IG) (n = 77) or a control group (CG) (n = 85). The IG had free access to the iSupport-Brasil platform for three months. Simultaneously, the CG participants were provided with a link to access the Brazilian Alzheimer's Association website and a copy of the "Care Guide for Older People", published by the Brazilian Ministry of Health. Pre- and post-intervention assessments were carried out using measures of burden (a single-item Burden Scale and the Zarit Burden Interview – ZBI), and of anxiety and depressive symptoms (Hospital Anxiety and Depression Scale - HADS).

**Results:** Based on an intention-to-treat analysis, a reduction in anxiety symptoms was observed for the IG (p = 0.02). Based on a per-protocol analysis, significant reductions in burden (p < 0.01) and anxiety symptoms (p < 0.01) were found for the IG. No significant effects were found for depressive symptoms, although scores decreased. For the CG, the regression model indicated that, on average, burden and depressive symptoms worsened somewhat, but this result was not statistically significant.

**Conclusion:** The iSupport-Brasil program was effective in reducing perceptions of burden and anxiety symptoms among informal caregivers in Brazil. Therefore, we recommended that informal caregivers of people living with dementia use this program to help them broaden their interpersonal coping strategies and improve their emotional health, in addition to using mainstream long-term care support services.

## **P26: Variables associated with having psychosocial and healthcare needs among unpaid carers in Chile: Data from the National Disability and Care Dependence Survey (ENDIDE) 2022**

**Authors:** Deborah Oliveira, PhD, Claudia Miranda-Castillo, PhD, Alejandra-Ximena Araya, Felipe Toro Diaz

**Background:** There is a dearth of research on the health and psychosocial support needs of unpaid carers in low- and middle-income countries, where approximately 80% of all people living with a disability or functional impairment and who may need support with their activities of daily living currently reside.

**Objective:** To explore the variables associated with having the perception of psychosocial or health support needs among a sample of unpaid carers of people living with a disability and/or functional impairment in Chile.

**Methods:** This is a cross-sectional analysis of a nationwide, population-based survey involving sociodemographic, care, and mental health related data of 1,900 individuals aged 13 and older who reported being the primary carer for someone with care needs in their household (adults or older persons). Univariate and multivariate logistic regression analyses were used.

**Results:** Being widowed/divorced, providing more hours of care, more personal care tasks, with an increased level of perceived difficulty, were independently linked with higher odds of having psychosocial or health support needs. Experiencing (most of the time) low interest/depressive mood, low energy, and anxiety, were associated with 0.6-, 0.9-, and 0.7-times higher odds of having unmet psychosocial and healthcare needs, respectively, compared to experiencing these a few times. Having low sense of control most of the time led to 2.6 higher odds of having psychosocial or health support needs compared to those who felt this way only a few times.

**Conclusions:** Variables related to the care provision and mental health, which could be improved with the receipt of more formal support, were the strongest factors related with unmet psychosocial and healthcare needs.

## **P27: From Development to Implementation: A Novel Clinical Post-Fall Assessment Tool in Long-Term Care**

**Authors:** Diana Cruz Santiago

**Objective:** The study aims to: (i) develop a clinical post-fall assessment tool for older adults in long-term care (LTC) settings; (ii) validate the tool's effectiveness and usability; and (iii) assess the practical application and impact of the tool within LTC units.

**Methods:** The three-phase study employed a sequential exploratory mixed-methods framework. Phase I: Tool development comprised a comprehensive literature review and a qualitative study of semi-structured interviews with nine healthcare professionals. Phase II: Validation adopted an embedded design, where qualitative perceptions from 18 professionals through two focus groups informed iterative improvements and a quantitative questionnaire (a Likert scale and open-ended questions) assessed the tool's effectiveness and user experience. Phase III: Implementation encompassed a retrospective and prospective longitudinal study, focusing on fall incidence, communication efficacy, and usability, to gauge the tool's real-world impact.

**Results:** From Phase I, a mnemonic checklist was developed and structured into five sections: patient characteristics, fall description, primary and secondary assessments, and post-fall management—selected for clinical practicality. In Phase II, focus group insights prompted refinements to the tool, while follow-up questionnaires indicated the tool's substantial utility in enhancing practice (65%), communication (69%), usability (71%), and satisfaction (76%). Responses highlighted key challenges such as resistance to change and workload, contrasting with facilitators like availability and uniformity. The need for training and a period of adaptation were viewed as factors that could compromise use. In Phase III, the tool showed greater utility for identifying fall-related complications and managing falls, with a notable preference among all nurses, regardless of experience level, particularly those with less than 5 years of experience.

Moreover, a comparison of falls over two three-month periods—one without the tool and one with it—revealed that the tool enhanced communication between doctors and nurses. This improvement led to quicker notification of doctors and more efficient transfers of patients to the emergency room when necessary.

**Conclusion:** Our tool aims to improve comprehensive post-fall assessments for older adults in LTC settings, facilitating improved communication and decision-making among healthcare professionals. With its usability and practical design, this mnemonic checklist shows great potential for wide adoption in enhancing patient care practices.

## **P28: Promoting Caregiver Wellbeing through Caregiver Literacy**

**Authors:** Elaine Jurkowski

**Objectives:** Caregiving can be a daunting and isolating experience, especially when supporting a loved one with Dementia. The objective of this intervention was to provide a series of educational sessions available to caregivers to help educate them on strategies to enhance their well-being and interactions with a loved one living with dementia.

**Methods:** The Caregiver Literacy Series is a compilation of 18 webinar sessions with therapeutic workbooks designed to help caregivers understand the nature of specific dementia-related issues and designed to help the caregiver build some personal strategy to help better manage their caregiving role. Based upon a Framework that uses the Perceived Self-Efficacy Theory, each webinar provides educational materials, and resources and is designed to help build an action plan for the caregiver. Topics include “What is Caregiving?”, “Caregiving and Compassion Fatigue and Self-Care” and topics address coping and communication strategies. The webinar sessions were administered monthly and semi-monthly to consumers through a local Alzheimer’s Association network in the rural Midwest of the United States.

**Results:** Feedback from consumers who have used the materials suggest that the materials have provided some measure of information and helpful educational materials. The workbooks have also been an effective tool to help guide and empower the caregivers.

**Conclusion:** The Caregiver Literacy Series provides some effective and needed materials to help equip caregivers living with a loved one that has Dementia or Alzheimer’s disease with some measure of health literacy and empowers them to feel some sense of empowerment and comfort in the process.

## **P29: Exploring aging trajectories using neurocognitive age**

**Author(s):** Élise Roger<sup>1,2</sup>, Olivier Potvin<sup>3</sup>, Simon Duchesne<sup>3</sup>, Yves Joannette<sup>1,2</sup>

1. Research Center of the Montreal Institute of Geriatrics, Montreal, Quebec, Canada
2. School of Speech-Language Pathology and Audiology, Faculty of Medicine, Montreal University, Montreal, Quebec, Canada
3. Department of Radiology and Nuclear Medicine, Faculty of Medicine, Laval University, Quebec City, Quebec, Canada

**Summary:** The aging of the population poses significant challenges in healthcare, necessitating innovative approaches. Advancements in brain imaging and artificial intelligence now allow for characterizing an individual’s state through their “brain age,” derived from observable brain features. Exploring an individual’s “biological age” rather than chronological age is becoming crucial to identify relevant clinical indicators and refine risk models for age-related diseases. However, traditional brain age measurement has limitations, focusing solely on brain structure assessment while neglecting functional efficiency.

Our study focuses on developing “neurocognitive ages” specific to cognitive systems to enhance the precision of decline estimation. Leveraging international (NKI2, ADNI) and Canadian (CIMA- Q, COMPASS-ND) databases with neuroimaging and neuropsychological data from older adults [control subjects with no cognitive impairment (CON): n = 1811; people living with mild cognitive impairment (MCI): n = 1341; with Alzheimer’s disease (AD): n = 513], we predicted individual brain ages within groups. These estimations were enriched with neuropsychological data to generate specific neurocognitive ages. We used longitudinal statistical models to map evolutionary trajectories. Comparing the accuracy of neurocognitive ages to traditional brain ages involved statistical learning techniques and precision measures.

The results demonstrated that neurocognitive age enhances the prediction of individual brain and cognition change trajectories related to aging and dementia. This promising approach could strengthen diagnostic reliability, facilitate early detection of at-risk profiles, and contribute to the emergence of precision gerontology/geriatrics.



**Keywords:** Aging population, brain age, biological age, neurocognitive age, neuroimaging, neuropsychological data, artificial intelligence, cognitive decline, aging trajectories, dementia, geriatrics, precision medicine, longitudinal study, risk assessment, diagnostic reliability

### **P30: Agitation in Alzheimer's Dementia: Conceptual Framework to Demonstrate the Burden of Illness**

**Authors:** George T. Grossberg, MD, Xue Han, Brian Talon, Emily Boller, MPH, Wenjie Zhang, Sam Keeping

**Introduction:** Agitation in Alzheimer's dementia (AAD) confers significant humanistic and economic burden; however, factors, and relationships between them, which drive the extent of this burden are poorly understood. The objective of this study was to review and gather evidence on the burden of AAD in order to develop a conceptual framework capturing its effects on patients, their families, clinicians (i.e., care teams), and society, which can then be used to guide further research into how the burden of AAD might be reduced.

**Methods:** Evidence on the burden of AAD was identified via a targeted literature review. Data were classified into societal, patient/family/care team, and mitigating factors. A conceptual framework (i.e., a visual representation of variables and associations between them) was developed to map the relationships between factors and illustrate the precedents and downstream effects of agitated behaviors on patient and caregiver outcomes, including healthcare resource utilization (HCRU), costs, and admission to long term care (LTC).

**Results:** Agitated behaviors were found to directly impact caregiving demands in terms of the number of hours required to care for patients. Similarly, levels of caregiver stress (i.e., total caregiver burden, personal strain, role strain, and guilt) were found to be associated with the frequency and intensity of AAD. Burden also extended to care teams via increased HCRU (i.e., pharmacy, outpatient, inpatient, and emergency room visits), and consequently costs, relative to non-agitated patients. Indirectly, through caregiving demands, agitation also affected the rate of placement in formal care and LTC, both of which are associated with incremental costs. Evidence also indicated that mitigating factors such as pharmacological treatment could impact the frequency and intensity of agitated behaviors, potentially affecting downstream HCRU and costs. Limited evidence exists on the optimal means of employing such strategies to limit caregiver demands and stress.

**Conclusions:** This study demonstrated the complex interplay of factors which drive the burden of AAD and the need which exists for novel ways to improve outcomes for those impacted by the disease. Better insight into the mechanism by which agitated behaviors influence caregiver demands and stress could help improve mitigation strategies both within family units and the larger health system.

### **P31: Direct and indirect costs of dementia in Brazil**

**Authors:** Fabiana A.F. Da Mata, Ari Alex Ramos, Laiss Bertola, PhD, Thais Suarez, Specialist, Cleusa Pinheiro Ferri, Haliton Alves de Oliveira Junior

**Objectives:** This study aims to estimate the direct and indirect costs related to dementia in Brazil.

**Methods:** This study is part of the ReNaDe (National Report on Dementia) project, a domiciliary survey conducted with 140 dyads of people with dementia and their caregivers in 17 municipalities in Brazil. We used the cost of illness study methodology to estimate costs. We collected data from the ReNaDe interviews and national records

and presented estimates from societal and SUS perspectives. Our total costs encompassed direct medical costs (hospitalizations, outpatient visits, and others) and indirect costs (for instance, the monetary value of informal caregiving hours) (Table 1). We did not consider direct social costs, given limited or inexistent information about cost and services utilization by people with dementia in Brazil. We used the replacement approach to estimate indirect costs.

**Results:** The monthly cost of dementia per individual increases with the syndrome's progression (Table 2). Indirect costs, primarily associated with informal care provided by family or friends, constitute at least 73% of total expenses, irrespective of dementia stage and adopted perspective. For Brazil in 2019, dementia's total annual cost stood at US\$18 billion, with indirect costs comprising 78%.

**Conclusions:** The average expenses per individual escalate with the advancement of dementia in Brazil. The pronounced prevalence of indirect costs accentuates the pivotal role that family caregivers assume in dementia care. Moreover, estimating the direct and indirect costs related to dementia, considering the reality of Brazil in its geographical diversity, is essential to understanding the reality of health resource allocation and, therefore, (re)direct resources to meet better the needs of people with dementia and their families.

Table 1

DIRECT COSTS			
<i>A) Services used for the care of people living with dementia:</i>			
Hospitalizations	SIH (DATASUS)	2022	16.22
Emergencies	SIGTAP	2023	2.57
<i>Outpatient consultations with healthcare professionals:</i>			
General practitioner	SIGTAP	2023	2.06
Neurologist	SIGTAP	2023	2.06
Geriatrician	SIGTAP	2023	2.06
Psychiatrist	SIGTAP	2023	2.06
Physiotherapist	SIGTAP	2023	1.30
Occupational therapist	SIGTAP	2023	1.30
Social worker	SIGTAP	2023	1.30
Psychologist	SIGTAP	2023	1.30
Nurse	SIGTAP	2023	1.30
<i>B) Products used in the care of people living with dementia:</i>			
Geriatric diapers	Community: average of 4 pharmacies and 4 brands Public Health System (SUS); Family Health Program (PFPP)	2023	Community: 0.71 SUS: 0.13
Medications (donepezil, galantamine, rivastigmine, and memantine)	Community: CMED SUS: BPS	CMED (2023) BPS (10.2022 to 10.2023)	PCDT Alzheimer
<i>C) Professional support:</i>			
Older people's caregivers or assistants	Novo CAGED	2022	1.70
INDIRECT COSTS			
<i>A) Caregiver hours dedicated to the care of people with dementia in ADLs:</i>			
Basic Activities of Daily Living (per hour)	Novo CAGED	2022	1.70
Instrumental Activities of Daily Living (per hour)	Novo CAGED	2022	1.70
Exclusive supervision (per hour)	Novo CAGED	2022	1.70
<i>B) Formal working hours of the caregiver lost to provide informal care for a person with dementia (per hour)</i>			
	Novo CAGED	2022	1.70

Abbreviations: SUS, Unified Health System; SIH, Hospital Information System; DATASUS, Informatics Department of the Unified Health System; SIGTAP, SUS Procedures, Medications, Ortheses/Protheses, and Special Materials Table Management System; PFPP, Brazilian Popular Pharmacy Program; CMED, Medicines Market Regulation Chamber; BPS, Databank of Prices in the Health Field; Novo CAGED, New General Register of Employed and Unemployed; PCDT Alzheimer, Clinical Protocol of Therapeutic Guidelines for Alzheimer's Disease.

Table 2

	DEMENTIA STAGES					
	INITIAL		INTERMEDIATE		ADVANCED	
	Average monthly per capita cost (US\$)	Proportion of total cost (%)	Average monthly per capita cost (US\$)	Proportion of total cost (%)	Average monthly per capita cost (US\$)	Proportion of total cost (%)
Total direct medical costs	92.17	21.43	122.42	18.20	217.75	27.07
Total indirect costs	338.06	78.57	550.10	81.80	586.61	72.93
<b>TOTAL COSTS</b>	<b>430.23</b>	<b>100.00</b>	<b>672.52</b>	<b>100.00</b>	<b>804.36</b>	<b>100.00</b>

### **P32: Association between pain behaviors and sleep impairment among people living with cognitive impairment**

**Authors:** Alison R. Anderson<sup>1</sup>, Fanghong Dong<sup>2</sup>, Charisse Madlock -Brown<sup>1</sup>, Miranda V. McPhillips<sup>3</sup>, Nancy A. Hodgson<sup>3</sup>

<sup>1</sup> College of Nursing, The University of Iowa, Iowa City, IA 52242, U.S.A.

<sup>2</sup> School of Medicine, Washington University, St. Louis, MO, 63110, U.S.A

<sup>3</sup> School of Nursing, University of Pennsylvania, Philadelphia, PA 19104, U.S.A.

**Objective:** To examine pain behaviors and sleep impairment by sex, race/ethnicity, education, and cognition in people living with cognitive impairment (PLwCI).

**Methods:** Participants (N = 210) in the Healthy Patterns Study, aimed at improving sleep-wake disorders in PLwCI, were included for analysis and were comprised of Black: 135 (64%), Hispanic/Latino: 41(19.5%), white: 34(16%), and primarily female: 140 (67%) individuals. The primary independent variable was PROMIS Pain Behavior 7a. Outcome variables were PROMIS Sleep-Related Impairment 8a, Pittsburgh Sleep Quality Index (PSQI), and actigraphy. Higher scores indicate worse symptoms. Descriptive analysis used t-tests, Mann-Whitney U-tests, and Chi-square tests based on data distribution and variable type. Multiple regression models explored pain behaviors and sleep quality, adjusting for age, gender, education, race, and Clinical Dementia Rating (CDR). Data analysis was conducted using R (v3.5.1).

**Results:** Descriptive analysis showed those with a high school education had higher pain behaviors than those with some college ( $p = 0.00703$ ) and individuals with CDR of  $\geq 1$  had higher pain behaviors than those with CDR of 0.5 ( $p < 0.001$ ). For PROMIS Sleep, males had higher scores than females ( $p = 0.00307$ ), those with CDR of  $\geq 1$  had higher scores than those with CDR of 0.5 ( $p < 0.001$ ), and there were race/ethnicity differences ( $p < 0.001$ ) with Hispanics having higher scores. Individuals with less education had higher PSQI scores ( $p = 0.0277$ ). For objective sleep (actigraphy), total sleep time differed by race/ethnicity ( $p = 0.0173$ ), with Blacks having slightly shorter sleep. Those with CDR of 0.5 had shorter total sleep time than those with CDR of  $\geq 1$  ( $p = 0.0114$ ). Regression analysis showed PROMIS pain score was associated with PROMIS Sleep score ( $\beta = 0.30$ ; SE = 0.06,  $p < 0.001$ ), indicating that every unit increase in PROMIS pain score increased PROMIS Sleep score by 0.30. PROMIS pain score was also associated with PSQI ( $\beta = 1.04$ ; SE = 0.28,  $p < 0.001$ ), indicating that every unit increase in PROMIS pain score raises PSQI score by 1.04.

**Conclusion:** This study identified pain behaviors and sleep quality differences by sex, race/ethnicity, education, and cognition, with worse sleep associated with more pain behaviors. This interplay of demographics, pain behaviors, and sleep emphasizes the need for tailored interventions in PLwCI.

### **P33: From Depressive disorder with psychotic symptoms to Lewy Body Dementia (LBD)– The Importance of Differential Diagnosis in Psychogeriatrics: A Case Report**

**Authors:** Vinícius Boaventura Caio Lucena, Joao Victor Tavares, Rodrigo Leal, Lucas Martins, Paulo H. F. Bertolucci, MD, Cleusa Pinheiro Ferri

**Objective:** To highlight the importance of differential diagnosis in the psychogeriatric context, with an emphasis on Lewy Body Dementia (LBD).

**Case Report:** A 68-year-old woman with 6 years of education presented with symptoms of hypobulia, social withdrawal, sadness, and anhedonia 10 years ago. Concurrently, she experienced delusions and visual hallucinations, believing that armed neighbors were entering her house to kill her. She began psychiatric treatment at the Geriatric Psychiatry department at UNIFESP, where she was diagnosed with depressive disorder with psychotic symptoms and panic disorder. She was started on sertraline, and due to QT interval prolongation with risperidone and quetiapine, clozapine 100mg was introduced, without extrapyramidal signs and symptoms. She experienced remission of visual hallucinations but developed apathy but started to exhibit periods of mental confusion. During follow-up, cognitive impairment was noted, and a diagnosis of dementia was made. She began forgetting to turn off the stove, leaving doors open, and getting lost in unfamiliar places. MRI of the brain (2017) showed diffuse bilateral atrophy, and SPECT (2018) showed diffuse (non-localized) hypoperfusion, as per medical records. The attending team referred her for joint evaluation, suspecting frontotemporal dementia and behavioral variant Alzheimer's disease due to observed apathy and behavioral changes. She was referred for follow-up at the Behavioral Neurology Clinic at UNIFESP. The patient was evaluated by behavioral, sleep, and extrapyramidal neurology clinics. All concurred on the most probable diagnosis of Lewy body dementia (LBD), characterized initially by well-defined visual hallucinations of deceased relatives interacting with her, significant movement during sleep with vocalization and dream enactment, rigidity, gait instability that worsened with antipsychotic treatment, episodes of inattention, and marked apathy. Cognitive fluctuation was noted by her husband and confirmed by the application of the MMSE in different consultations. Galantamine 24mg was prescribed, leading to initial improvement in cognitive complaints at the start of treatment.

**Discussion:** Lewy Body Dementia is the second most common neurodegenerative disease causing dementia. It is believed to be vastly underdiagnosed, with a significant disparity between the number of clinically diagnosed cases and those diagnosed via neuropathology at postmortem autopsy. According to a study conducted by Auning E et al., which differentiated the presenting complaints of DLB and AD, the most common complaint reported by DLB patients was memory dysfunction, with a prevalence of 57%, followed by visual hallucinations (44%), depression (34%), problem-solving difficulties (33%), gait disturbances (28%), and tremor and stiffness (25%), all features presented by the patient in this case report.

**Conclusion:** Specificity and diagnostic accuracy in the clinical setting remain challenges in the diagnosis of DLB. In the clinical setting, DLB is often misdiagnosed.

### **P34: Pharmacological Treatment Use for Dementia in the Elderly Population from the National Report on Dementia in Brazil (ReNaDe): Associated Aspects**

**Authors:** Fernanda M. Faria, Vinícius Boaventura, Cleusa Pinheiro Ferri

**Objectives:** General To delineate the epidemiological and clinical profile of elderly individuals diagnosed with dementia who use antidementia drugs and are followed up in the Unified Health System (SUS), comparing them with a group that does not undergo pharmacological treatment, as well as the sociodemographic characteristics of their respective caregivers.

#### **Specific**

1. Compare sociodemographic (age, sex, education, marital status, region), clinical (comorbidities, stage of dementia, most common symptoms, dementia medication used, use of other psychotropics) characteristics and caregiver profile (education, age, mental illness, formality of care, caregiver burden) between the group

of people receiving pharmacological treatment for dementia and the group, also diagnosed with dementia, but not using medication for it.

2. Test whether the geographic region is a modifying effect of the associations found in specific objective item 1.
3. Identify, among individuals using psychotropic drugs for dementia, the type of medication used and at what stage of the disease it was introduced and is being used, and how access to the medication was achieved—purchased or dispensed by the SUS pharmacy.

**Methods:** This is a retrospective, cross-sectional, observational, case-control, and non-randomized study conducted in the five geopolitical regions of Brazil, including a total of 17 cities of different sizes (small, medium, and large). All 140 people interviewed and diagnosed with dementia, as well as their 140 respective caregivers, were included. The following manuals and scales were used for evaluation: the Clinical Dementia Rating (CDR) - a questionnaire for clinical assessment of dementia, the Neuropsychiatry Inventory-Questionnaire (NPI-Q) - used for assessing neuropsychiatric symptoms, the Johns Hopkins Dementia Care Needs Assessment (JHDCNA 2.0) - an instrument that assesses the care needs of people with dementia and their caregivers, the Montreal Cognitive Assessment (MoCA) - a cognitive screening instrument, and DEMQOL. Data will be grouped for analysis of grouped and cumulative frequency and correlations between variables established using Microsoft Excel software. Statistical data will be processed with the STARTA software.

**Results:** The present study is under statistical analysis, with completion expected in June. The following hypotheses are intended to be investigated:

1. Patients using pharmacological treatment for dementia with more clinical comorbidities use more anticholinesterase drugs.
2. There is an association between the prescription of pharmacological treatment for dementia and the region of the country.
3. Patients taking anticholinesterase drugs exhibit fewer neuropsychiatric symptoms compared to the population not using such medication and classified at the same stage of dementia.
4. Caregivers of people with dementia using pharmacological treatment for it are less burdened than caregivers of the other group not using pharmacological treatment for it.

**Conclusion:** The exponential increase in dementia cases, in light of the global aging population, underscores the importance of investigating the factors associated with the pharmacological treatment of elderly people with dementia—to mitigate the obstacles that hinder adequate treatment.

### **P35: Correlations between lipid profile parameters and inflammatory molecules in patients with Alzheimer's disease**

**Authors:** Gabriela L. Martins, Suelyn Koerich, Ramayana M. M. Brito, Luísa M. D. Magalhães, Cláudia N. Ferreira, Elisa P. F. Resende, Leonardo C. Souza, Paulo Caramelli, MD, PhD, Antônio Carlos P. Oliveira, Helton J. Reis

**Objective:** Evaluate correlations between lipid profile parameters and inflammatory mediators, including molecules related to inflammasome NLRP3 activation, in patients with Alzheimer's disease (AD) and controls.

**Methods:** A cross-sectional study was conducted with 23 patients diagnosed with AD and 33 controls. Clinical and demographic data were collected, as well as blood samples. Lipid profile in serum and inflammatory mediators in plasma were measured by immunoenzymatic methods. Correlations between variables were assessed using the

Spearman correlation test. All procedures were performed in accordance with the principles provided in the Declaration of Helsinki.

**Results:** In controls, moderate negative correlations of cholesterol present in high density lipoprotein (HDLc) with interleukin (IL)-10, IL-12p70 and tumor necrosis factor (TNF) were observed. On the other hand, these findings were not observed in patients with AD, in which there were moderate positive correlations of caspase-1 with total cholesterol (TC), cholesterol present in low density lipoprotein (LDLc) and non-HDLc.

**Conclusion:** There was an inverse relationship between the levels of HDLc, a lipoprotein that exerts protective functions on the walls of blood vessels against the formation of atherosclerotic plaques, and the activation of an inflammatory response in control individuals. Interestingly, such correlations were not observed in patients with AD. In these, TC, as well as LDLc and non-HDLc, which consist of the fractions that have the greatest association with hypercholesterolemia and atherogenic events, were moderately and positively correlated with caspase-1. Thus, these findings allow us to consider that in AD there may be a relationship between hypercholesterolemia and caspase-1, a component involved in the activation of the NLRP3 inflammasome.

### **P36: Evaluation of inflammatory molecules related to the activation of the NLRP3 inflammasome in patients with Alzheimer's disease**

**Authors:** Gabriela L. Martins, Suelyn Koerich, Ramayana M. M. Brito, Luísa M. D. Magalhães, Cláudia N. Ferreira, Elisa P. F. Resende, Leonardo C. Souza, Paulo Caramelli, MD, PhD, Antônio Carlos P. Oliveira, Helton J. Reis

**Objective:** Evaluate the plasma level of molecules related to inflammasome NLRP3 activation in patients with Alzheimer's disease (AD), compared to controls.

**Methods:** A cross-sectional study was conducted with 23 patients diagnosed with AD and 33 controls. Clinical and demographic data were collected, as well as blood samples. Components related to inflammasome NLRP3 activation in plasma, interleukins (IL)-1 $\beta$  and 18, as well as caspase-1, were measured by immunoenzymatic methods. Comparison between the groups was assessed by Mann Whitney test. All procedures were performed in accordance with the principles provided in the Declaration of Helsinki.

**Results:** AD patients had higher levels of IL-1 $\beta$  compared to controls, however, IL-18 and caspase-1 were not different between the groups.

**Conclusion:** In previous studies it was also detected increased values of IL-1 $\beta$  in serum samples from patients with AD and mild cognitive impairment, in comparison with controls, and it was suggested this cytokine could be produced at the onset of the disease and remain elevated after the establishment of AD. Regarding IL-18, the data relating the peripheral levels of this cytokine in patients with AD in the literature are conflicting. Furthermore, other authors also found no differences in serum levels of caspase-1 when comparing both patients with mild and advanced AD with controls. The data from the present study allows us to consider that increased levels of IL-1 $\beta$ , but not other components involved in the activation of the NLRP3 inflammasome, may be related to AD. These findings support further investigation about the association between these factors and AD, in order to better understand the pathological mechanisms involved in the disease, in the search for future effective therapeutic targets.

### **P37: Older adult's dementia. Implementation of a multidisciplinary day care program in Argentina**

**Author:** Feldberg, C.; Guyet, G. Tartaglini, M.F., Vilas, S., Butazzi, M., Jacoboni, M. Terán, C. Astudillo, M. and Kasten, S

**Background:** Day care programs for older adults with dementia is an effective strategy that allows prolonging the functionality of the elderly, their support and that of their family reducing home care costs and delaying the institutionalization of patients with cognitive impairment.

**Objective:** The aim of the present work is to describe the main goals and the implementation of a multidisciplinary day care program for patients with dementia and their family caregivers in Argentina.

**Method:** Design: Prospective cohort study. Subjects: 22 patients and their family caregivers, who attend a day care program in Argentina. Instruments: socio-demographic and psychosocial questionnaire of both patient and caregiver (built ad hoc) Patient: MMSE, GDS, HAD-A, PANAS- VRARG, EQ-5D and instrumental and basic abilities of daily living. Family caregiver: Zarit Burden Interview. Procedure: The intervention for patients consists of two different lines of work, one for the patient, and another for the family member. The activities are coordinated by a multidisciplinary group of professionals. Regarding the caregiver, individual orientation interviews and therapeutic group spaces and psycho-educational material are offered.

**Results:** Preliminary data of 22 patients and caregivers, who have taken part in the program so far, indicate that: Patient: median age was years 75,27 old (ds = 9,28), % 63,6 of which are woman. The values obtain in the instrument are: MMSE 22,45 (ds = 4,78) GDS 4,47 (ds = 3,73) , HAD-A 3,66 (ds = 3,39) , (PANAS -E-VRARG) Negative items 7,70 (ds = 3,11) (PANAS -E-VRARG) Positive ítems 18,7 (ds = 3,13) , EQ-5D 77,35 (ds = 16,21) and BHDL 93,63 (ds = 13,10) , IHDL 9,1 (ds = 3,31) . And for family caregivers the mean age was 65,27 old (ds = 11,37), % 66,71 of which are woman. Caregivers Zarit Burden Interview mean score was 40, 18 (ds = 11,35).

**Discussion:** Our findings concur with those presented in scientific literature and support the WHO recommendations regarding the need to implement multidisciplinary programs for patients with dementia and family caregivers, in order to moderate the impact that providing care for an elderly relative with a neurological disease has on them.

### **P38: Relationship between Attitudes toward Dementia and Deficiency of Social Functioning among Community-dwelling Older Persons**

**Authors:** Hiroki Inagaki, Mika Sugiyama, Shuichi Awata

Tokyo Metropolitan Institute for Geriatrics and Gerontology

**Objective:** To achieve a dementia-friendly society, it is important to understand the attitudes of community-dwelling people toward dementia and those with dementia. Previous studies have reported an association between reduced interpersonal and social interactions and ageism. This may lead to increased prejudice and intolerance toward dementia and people with dementia. This study examined whether a deficiency in social functioning is associated with attitudes toward dementia among community-dwelling older persons.

**Methods:** We conducted a self-administered questionnaire survey shared by mail with 4,986 community-dwelling older persons (mean age  $75.0 \pm 6.78$ ; 2,703 women) who were not certified as requiring nursing care in the Tokyo metropolitan urban area. Attitudes toward persons with dementia were assessed using the “Attitudes Toward Dementia Scale” (ATDS; Kim & Kuroda, 2011). ATDS comprises 14 items with scores ranging from 14 to 56; a higher score indicated more positive attitudes. Social functioning was measured by 1) living alone, 2) emotional support, 3) instrumental support, 4) going out less often, 5) visiting friends’ homes, 6) feeling useless, 7) low education, 8) participation in community activities, and 9) economic status. Binomial logistic regression analysis was conducted using these nine social functions as explanatory variables, with sex, age, a subjective sense of health, cognitive decline, mental health, caregiving experience, and the five items of knowledge and awareness of dementia as adjustment variables.

**Results:** The social functions that were significantly associated ( $p < .05$ ) with ATDS were a lack of instrumental support (OR = 1.27, 95%CI = 1.01–1.59), not visiting friends’ homes (OR = 1.25, 95%CI = 1.03–1.53), feeling useless (OR = 1.48, 95%CI = 1.12–1.96), and not participating in community activities (OR = 1.27, 95%CI = 1.05–1.54), and all of these were associated with negative attitudes toward people with dementia. Male sex, extremely old age, poor mental health, lack of caregiving experience, and poor knowledge about dementia were also associated with negative attitudes.

**Conclusion:** Lack of support and connections with friends and neighbors were associated with negative attitudes toward persons with dementia. To achieve a dementia-friendly society, it is crucial to have contact with people with dementia, knowledge about the symptoms of dementia, as well as connections with others in the community.

**Key Words:** Attitudes toward Dementia/ Social function/ Community-dwelling older persons

### **P39: Effect of sleep report feedback with health guidance using a sleep monitoring device for improving sleep in community-dwelling older people: A randomized controlled trial**

**Authors:** Hitomi Chikama, Miyae Yamakawa, BSN, Ph.D., Hiroyoshi Adachi, MD, Kodai Nobuhara, Eriko Koujiya, Yasushi Takeya, Manabu Ikeda, MD, PhD

**Objective:** To evaluate the effectiveness of the sleep monitor device, feedback from sleep report, and regular advice for community-dwelling older people.

**Methods:** Randomized controlled trial and evaluator blinded. Subjects are over 65-year-old who live in the community or living alone or in older households or requiring support under long-term care insurance in Japan. They are divided into three groups: A) For 6 months, send monthly report and conduct telephone intervention; B) For the first 3 months is same intervention as A, then for the next 3 months. only send monthly report; C) For 6 months, send monthly report. A sleep monitoring device: Active Sleep Analyzer is a non-wearable actigraphy device and was used to evaluate objective sleep, such as total sleep time, sleep latency, sleep efficiency, wake after sleep onset, number of awakenings. The primary outcome was the subjective sleep quality from Athens Insomnia Scale (AIS). We mainly conducted three analyses. 1) Basic characteristics at baseline 2) Paired t-tests within groups to examine differences in AIS after the intervention from baseline. 3) Repeated measurements to examine differences in AIS between the three groups depending on time. All significance levels were set at  $p < 0.05$ . The study was conducted with the approval of the Osaka University Hospital Ethics Review Committee.



**Results:** We contacted 349 people to participate and randomized 223 people who attended the first seminar and met the eligibility criteria. We analyzed 212 participants (A72, B70, C70), excluding those with dropouts or significant missing data, with the demographic profile of participants being 36% male, mean age 75 years, mean AIS 6.6. Most participants were interested in sleep and wanted to improve their sleep at baseline. As a result of repeated measurements, a significant decrease in AIS was observed in group A and B. For 3month, A decreased  $1.8 \pm 0.42$ ,  $p = 0.0013$ , B decreased  $2.4 \pm 0.41$ ,  $p < 0.0001$  and for 6month, A decreased  $1.5 \pm 0.39$ ,  $p = 0.0072$ , B decreased  $1.4 \pm 0.40$ ,  $p = 0.0188$ .

**Conclusion:** Reports using sleep data and feedback from experts over the phone can improve the sleep of older people. This intervention could allow older people to reconsider not only their sleep but also their lifestyle, potentially improving their health.

#### **P40: The Night's Story. The impact of blindness on the lexical richness of the work of Jorge Luis Borges.**

**Authors:** Ignacio Flores, Guido Dorman, Natalia Sierra Sanjurjo, Santiago O Neill

**Introduction and Objectives:** Vision plays an important role in theories of cognitive development and language acquisition. Studies on acquired blindness have shown a negative impact on the outcome of semantic and phonological fluency tasks in those who suffer from it. The objective of our work was to evaluate the potential effect of visual deficit on the lexical richness (quantity of different words or lexical units) of the work of the Argentine writer Jorge Luis Borges (JLB).

**Material and Methods:** Verses and prose texts by JLB (complete works of stories and poetry) were analyzed. The total number of words used was counted, and within them, the number of unique words (numbered words without counting their repetitions) was quantified using the Unique Word calculator tool from Planet Calc®. The results obtained after the period in which his blindness prevented him from reading texts were compared with the data obtained from his previous literary production. Statistical results were obtained using SPSS software. Means, standard deviations, and the result of a t-test were calculated.

**Results:** Data from 3 books of stories and 3 poetry books written between the years 1923 and 1949 (a period in which he still retained his reading ability) were collected, as well as data from 3 books of stories and 10 poetry books from his post-blindness period (starting from 1955). A total of 93446 and 59749 total words were obtained from the pre and post-blindness periods, respectively, with a total of 39887 and 24610 unique words from the mentioned periods. A percentage of unique words over total words was calculated for both periods, and a T-test for related measures was conducted. Although a lower percentage was observed in both the narratives between the pre-blindness stage ( $M = 45.09\%$ ;  $SD = 6.8\%$ ) and post-blindness stage ( $M = 40.92\%$ ;  $SD = 4.7\%$ ), as well as in the poems pre-blindness stage ( $40.92\%$   $SD 4\%$ ) and post-blindness stage ( $32.57\%$   $SD 4.5\%$ ), this difference was not statistically significant (narratives  $p = 0.155$ ; poems  $p = 0.106$ ).

**Conclusion:** The analysis of the comparison between pre-and post-blindness stages of lexical richness in JLB's writing does not align with the fluency deficit reported in the literature. The continuity of his active intellectual life may have influenced his lexical performance through compensatory mechanisms.

### **P41: Staying in 1900: a predictor of dementia**

**Authors:** Ignacio Flores, Guido Dorman, Natalia Sierra Sanjurjo, Santiago O Neill

**Introduction and Objectives:** Although new complementary tests have emerged for the diagnosis of cognitive impairment and dementia, due to their high costs and limited availability, it is crucial to find low-cost, simple, and quick tools during the clinical examination that allow the physician to correctly diagnose these diseases. The study aims to evaluate the predictive value of mentioning the year 1900 during temporal orientation in patients presenting with cognitive disorders. No similar studies to the one proposed have been reported.

**Materials and Methods:** A prospective cross-sectional observational study was conducted on patients who underwent cognitive evaluation between April and October 2019 and were being followed up in a cognitive neurology service. Within the administration of the Mini-Mental State Examination (MMSE) by Folstein, the reported year during temporal orientation was recorded, considering it positive if the response was between 1900 and 1999. The presence of dementia was determined according to the NIA-AA clinical criteria. Epi Info 7.2.1 was used for statistical analysis.

**Results:** A total of 192 patients with a mean age of  $68.5 \pm 13.97$  years were included (65.10% women and 34.90% men). 20.31% had dementia (51.28% non-Alzheimer's dementia and 48.72% Alzheimer's-type dementia), while 79.69% had other diagnoses (73.6% non-amnesic mild cognitive impairment, 8% subjective complaint, 4% psychiatric disease, 14.4% amnesic mild cognitive impairment). Mentioning the 1900s had a specificity of 95% and a sensitivity of 58% for diagnosing Alzheimer's-type dementia versus other dementia types (positive and negative predictive values of 92% and 70% respectively). A positive response in the 1900s was associated with a lower MMSE score (Mean 20.5 SD 5.38 vs. Mean 27.1 SD 3.19 in patients with a negative response ( $p < 0.0001$ )). Additionally, patients without a 1900s response had a higher number of years of education 14.03 SD 4.2 vs. 10 SD 5.3 ( $p < 0.0001$ ).

**Conclusions:** While this is a preliminary result and a larger sample would be needed, thinking you are in the 1900s seems to be a good dementia indicator, although it remains to be determined if it could be specific to a particular type.

### **P42: In the pocket of the gentleman. Diagnostic of functionality in cognitive impairment within reach.**

**Authors:** Ignacio Flores, Guido Dorman, Natalia Sierra Sanjurjo, Claudia Munera, Santiago O Neill

**Introduction and Objectives:** The affected functional domains in patients with degenerative dementias serve as clues to trace with varying levels of certainty the underlying neuropathology (1) and the negative impact on their autonomy reveals part of the clinical diagnosis of the disease. Healthcare professionals often rely on tools that measure this functionality, allowing them to distinguish between mild cognitive impairment and actual dementia (FAQ (2), CDR(3)).

According to the science fiction author Philip K. Dick, Kipple is a useless object like advertising cards, matchboxes after the last match has been used, yesterday's newspaper wrapper, etc. Considering that the deterioration in the autonomy of dementia patients negatively impacts their connection with the environment, it is expected that the kipple around them will be few.

The aim of this work is to create a low-cost, simple, and quick tool that allows the physician to measure the negative impact of the patient's cognitive failures on their functionality.

### **P43: Loss of Fornix White-Matter Integrity is Associated with Impulse Dyscontrol in Cognitively Normal Older Adults**

**Authors:** Juan Francisco Flores-Vázquez<sup>1,2,3</sup>, Alejandro Santos-Díaz<sup>4</sup>, Oscar René Marrufo-Meléndez<sup>5</sup>, Isaac Acosta-Castillo<sup>6</sup>, Ana Luisa Sosa-Ortiz<sup>6</sup>, Andre Aleman<sup>2,3</sup>, Stefanie Enriquez-Geppert<sup>2,3</sup>

1. Instituto Nacional de Geriátría, Dirección de Investigación, México
2. University of Groningen, Department of Clinical and Developmental Neuropsychology, The Netherlands
3. University of Groningen, Department of Biomedical Sciences of Cells & Systems, Section of Cognitive Neuropsychiatry, The Netherlands
4. Instituto Tecnológico de Estudios Superiores de Monterrey, School of Engineering and Sciences, Mexico City, México
5. Instituto Nacional de Neurología y Neurocirugía Manuel Velasco Suárez, Unidad de Neuroimagen, México
6. Instituto Nacional de Neurología y Neurocirugía Manuel Velasco Suárez, Laboratorio de Demencias, México

**Introduction:** Mild behavioral impairment (MBI), and particularly its impulse dyscontrol domain, has been linked to brain alterations suggestive of Alzheimer's disease (AD) in subjects without dementia. We aimed to analyze the association of impulse dyscontrol with the loss of integrity in white-matter brain tracts in a group of cognitively normal older adults.

**Materials and methods:** Using linear regression models, we analyzed the effect of impulse dyscontrol scores (using the MBI-Checklist, MBI-C) on diffusivity metrics (fractional anisotropy, FA; mean diffusivity) controlling for age and sex in five white-matter regions of interest: cingulum, fornix, hippocampus, superior fronto-occipital fasciculus, and uncinate fasciculus. A total of 48 cognitively normal older adults were included in the study.

**Results:** The mean age of the subjects was 67.5 years, and 28 (58.3%) were female. The mean impulse dyscontrol score was 2.9 (SD: 4.8, Rng: 0–22). The effect of the impulse dyscontrol score, controlling for age and sex, in the diffusivity measures of regions of interest was only significant in the fornix FA after multiple-comparison correction (weighted least squares model  $\beta = -3.65 \times 10^{-3}$ , SE =  $1.27 \times 10^{-3}$ , corrected p = 0.03, R<sup>2</sup> = 0.31).

**Discussion:** To our knowledge, this is the first time that an MBI domain is linked to MRI diffusivity measures in a group composed exclusively of cognitively normal older adults. Our findings add to the growing understanding of MBI, and particularly the impulse dyscontrol domain, as a potential behavioral marker indicating a higher risk for developing neurocognitive disorders.

**Materials and Methods:** A prospective cross-sectional observational study was conducted on patients who underwent a cognitive evaluation between May and October 2022 at the memory unit of the Favaloro Foundation (Buenos Aires, Argentina) who had undergone a neuropsychological evaluation during the current year and were under the care of our cognitive neurology service. During the medical interview, patients were asked to show the objects they carry in their pockets (wallet, candy wrapper, cellphone, thread, loose coins, tickets, receipts, etc.). Each item was counted independently. The total number obtained was compared. The total number obtained was compared with the FAQ and CDR values of each patient. A correlation between these data was sought, and it was determined whether this relationship (number of items carried in the pocket / scale value) has predictive value to determine if the patient meets dementia criteria according to functionality (FAQ: 6 or more, CDR: 1 or more).

**Results:** The sample consisted of 26 male patients (n = 26) with an average age of 69 years and MMSE Mean: 27.73. Within this group, 80.7% had a diagnosis of dementia (of any etiology) and the rest were either healthy patients or patients with mild cognitive impairment. The non-parametric MANN WHITNEY test was performed using the R statistical program. A statistically significant difference was found when comparing the dementia group and objects in the pocket (wilcox\_test p 0.00854). When comparing the group of patients with more than three objects and the presence of dementia, significant p values were also found (wilcox\_test p 0.0363).

**Conclusion:** The number of objects in the pocket of patients with cognitive impairment could be a valuable tool for predicting dementia.

The presence of 3 or more objects in the pocket of a patient with cognitive impairment could correlate with a low score on the functionality scales (FAQ less than 6, absence of dementia stage).

#### **P44: Neuropsychological Impact of Mandatory Preventive Social Isolation (Lockdown) on Older Adults with Cognitive Decline**

**Authors:** Natalia Sierra Sanjurjo, Santiago O Neill, Julián Bustin, María Roca

**Objective:** Various studies described the psychological impact of the mandatory preventive social isolation (lockdown) caused by COVID-19 across different age groups. However, no research had specifically analyzed the effects of lockdown on the cognitive performance of older adults with preexisting cognitive decline. This study aimed to determine the impact of lockdown on the cognitive functions of individuals with cognitive decline.

**Methods:** Argentina was one of the countries with the longest lockdown periods. Older adults in Argentina experienced extended lockdowns lasting several months, significantly limiting their social interactions and routine activities. Cognitive reevaluations were conducted on 16 patients who had attended a memory clinic with cognitive complaints and were evaluated before the lockdown (group 1). Their progression was compared with 16 patients evaluated and reevaluated over a similar period but without undergoing a lockdown (group 2). To compare the progression of both groups a “change index” (CI) were calculated for each test ((score assessment 1 – score assessment 2)/number of months between assessment 1 and assessment 2))

**Results:** Patient from group 1 and 2 were paired by age (M group 1 = 77.2, DS group 1 = 6.2, M group2 = 77.3 DS group2 = 6.6, p = .98), years of education (M group 1 = 13.6, DS group 1 = 2.8, M group2 = 13.9 DS group2 = 3.0, p = .81), Beck depression inventory score (M group 1 = 12.2, DS group 1 = 7.2, M group2 = 13.9 DS group2 = 7.4, p = .54) and Addenbrooke’s Cognitive Examination (ACE. M group 1 = 76.2, DS group 1 = 14.4, M group2 = 76.0 DS group2 = 20.7, p = .97) score at the first assessment. Group 1 showed a significant and greater increased of false positive than group 2 in Rey Auditory Verbal Learning Test recognition (M CIgroup 1 = -.31, DS CIgroup 1 = .38, M CIgroup 2 = -.01, DS CIgroup 2 = .44, p < .05). Results indicated that patients who experienced the lockdown exhibited a greater cognitive decline compared to the control group.

**Conclusion:** The findings suggest that the lockdown accelerated cognitive deterioration in individuals with memory complaints.

## **P45: Increase in suicide rates in the elderly population of the state of São Paulo: could Alzheimer's disease be a risk factor? - A Brief Report**

**Authors:** Juliano Flávio Rubatino Rodrigues,<sup>1,2,3</sup> Livia Peregrino Rodrigues,<sup>4</sup> Gerardo Maria de Araújo Filho,<sup>1</sup>

1. Faculdade de Medicina de São José do Rio Preto (FAMERP), São José do Rio Preto, SP, Brazil.
2. Faculdade de Medicina de Marília (FAMEMA), Marília, São Paulo, Brazil
3. Unimed Bauru Cooperativa de Trabalho Médico, Bauru, São Paulo, Brazil
4. Universidade de Marília (UNIMAR), Marília, São Paulo, Brazil

**Objective:** In recent years, there has been an increase in suicide rates in Brazil. From 2015 to 2019 we had a 34% increase in self-inflicted deaths. Are there some subgroups at greater risk of suicide, such as the old people with Alzheimer's disease?

**Method:** The data were obtained by consulting the systems of the Brazilian Institute of Geography and Statistics (IBGE) of the Brazilian Ministry of Health (DataSUS). Population data were measured and compared in the years 2010 and 2022, using the last two censuses.

**Results:** Between 2010 and 2022, the number of registered deaths of patients with Alzheimer's increased by 21.93%. Similarly, there was a 100.37% increase in suicides among the elderly population in the same period, compared to a 37.78% increase in the general population.

**Conclusion:** It is not possible to conclude that the increase in suicide among the elderly is directly linked to Alzheimer's disease. However, further studies are needed to determine if there is a correlation.

## **P46: Suicide behavior in Alzheimer's disease: Searching for new insights.**

**Authors:** Juliano Flávio Rubatino Rodrigues<sup>1,2,3</sup>, Livia Peregrino Rodrigues<sup>4</sup>, Gerardo Maria de Araújo Filho<sup>1</sup>.

1. Faculdade de Medicina de São José do Rio Preto (FAMERP), São José do Rio Preto, São Paulo, Brazil
2. Faculdade de Medicina de Marília (FAMEMA), Marília, São Paulo, Brazil
3. Unimed Bauru, Bauru, São Paulo – Brazil
4. Faculdade de Medicina da Universidade de Marília (UNIMAR), Marília, São Paulo, Brazil

**Objective:** The increase in suicidal behavior in patients treated with promising new drugs for Alzheimer's disease is a dilemma that deserves to be understood. The correlations between suicide and neurodegenerative disorders have been debated for decades in the context of ethics, considering that many people with cognitive decline have opted for euthanasia. The academic community is invited to pay greater attention to issues other than ethics that can improve the quality of life of people with dementia.

**Methods:** We sought to read the review articles on Pubmed on the topic over the last two decades to identify possible factors that are correlating suicide with Alzheimer's Disease. The data were grouped and presented to demonstrate possible studies that should be carried out to clarify the topic better.

**Results:** Depression and the presence of the E4 allele of Apolipoprotein E were the main correlation factors between Alzheimer's disease and suicide.

**Conclusions:** Targeted studies are needed to understand better the occurrence of depression in Alzheimer's disease, as well as the role of the E4 allele in mood disorders and suicidal behavior.

#### **P47: Feasibility evaluation an eHealth intervention to support holistic assessment and decision making for people with dementia in care homes**

**Authors:** Juliet Gillam<sup>1</sup>, Clare Ellis-Smith<sup>1</sup>, Jame Ross<sup>3</sup>, Nathan Davies<sup>4</sup>, Catherine Evans<sup>1,2</sup>

1. Cicely Saunders Institute, King's College London, Florence Nightingale Faculty of Nursing, Midwifery & Palliative Care, London, UK
2. Brighton General Hospital, Sussex Community NHS Foundation Trust, Brighton, UK
3. Wolfson Institute of Population Health, University College London, London, UK
4. Centre for Ageing Population Studies, Research Department of Primary Care and Population Health, University College London, London, United Kingdom

**Background:** Most individuals with dementia in the UK die in care homes. 70% of these are residential, relying on external healthcare professionals to manage the complex needs. eHealth can help facilitate the delivery of holistic care in care homes, yet adoption has traditionally been faced with resistance. Innovative approaches employing methods from implementation science are required to promote the uptake of eHealth in care homes.

**Aim:** To evaluate the feasibility of a theoretically-informed co-designed implementation plan for an eHealth intervention to support holistic assessment and decision making for people with dementia in care homes and their family carers, and to identify opportunities to strengthen it.

**Methods:** An embedded mixed-methods study conducted in two residential care homes. Qualitative data comprised non-participant observations of the intervention in use, focus groups and semi-structured interviews with care home staff. Data was analysed using a codebook thematic analysis underpinned by the Normalisation Process Theory. Quantitative data included app usage data and two implementation measures, analysed using descriptive statistics. Patient and public involvement informed development and conduct of the study.

**Results:** 20 care home staff across two care homes used the intervention with 26 residents. Whilst there was some evidence of adoption, reach within the care home and feasibility of its implementation, usage data indicated that the intervention was largely not utilised as intended. Whilst there was sufficient coherence around the intervention, staff faced barriers related to collective action including workload and incompatibility with practice. Reflexive monitoring was therefore low as individuals could not appraise its impact, which compromised staff cognitive participation. Revisions to the plan related to strategies to provide further staff support, including encouraging family involvement and a more tailored approach to training.

**Conclusion:** Evaluating feasibility of the implementation plan of the intervention was a vital step in its development. Rapid evaluation and iterative response to barriers to use informed learning and allowed for real-time adjustments to implementation strategies, and a set of updated recommendations for use. Further collaboration on the revised strategies with people living with dementia and their family carers is required.

### **P48: Language + Lexicon: Unique Perspectives on the Stigma Surrounding Alzheimer's Disease from the Latino Community**

**Authors:** Mary Chi Michael

**Objective:** To better understand the unique experience and stigma surrounding Alzheimer's disease and related neuropsychiatric symptoms. Particularly from the perspective of care partners and individuals living with the disease who are members of the Latino community.

**Methods:** This project captures stories from individuals representing Latino communities based in the United States. Our qualitative primary research consisted of multiple one-on-one interviews with more than 12 people living with dementia and care partners. Secondary research included a literature review on the community's experiences. Interviews were led by a member of the Latino community, with our research team on "listen only" mode.

**Results:** There are notable differences in how communities talk about Alzheimer's – including identifying early symptoms; conversations with families, communities, and HCPs; and determining pathways for care and treatment. From our conversations with members of the Latino community we heard statements like, "I did not want to tell anybody about my diagnosis. I felt I would be looked upon in a negative way" and "I didn't know anything about Alzheimer's. My uncles and aunts from the ranch and 'said no, no, it doesn't exist, it's all in the mind or something like that.'" All underscore the sweeping implications of history, stigma, bias, and culture on how diverse communities experience and respond to Alzheimer's and care. The resulting impact of these perspectives can lead to delayed diagnosis, reluctance to seek treatment, and a lack of a support system for care partners. However, we also heard stories of how individuals are using their unique experiences to educate those around them. For instance, we heard the importance of educating younger family members to break the cycle of stigma; "In the Latino community, households are often multigenerational, so it's important to educate kids on what's happening to grandma or grandpa, or even mom or dad."

**Conclusion:** It is imperative to understand and bring attention to the realities of diverse and underserved communities who disproportionately experience stigma and discrimination. This will allow for a more nuanced, community centered approach to raise awareness of Alzheimer's and the related symptoms, ultimately improving access to care and treatment for families.

### **P49: Prevalence of suicide among elderly people in Brazil**

**Authors:** Raquel F. Gonçalves, Keila CT Cruz, PhD

**Introduction:** The elderly population presents aggravating factors for the risk of suicide that must be considered. In this sense, it is known that there is a tendency for elderly people not to reveal suicidal ideation and to make highly self-destructive attempts. Furthermore, poorly planned retirement, social isolation, death of a spouse, family and friends can make this situation worse. However, few studies address this topic and public policies regarding suicide among the elderly are still scarce.

**Objective:** To analyze the prevalence of suicide among elderly people in different regions of Brazil between 2019 and 2021.

**Method:** Quantitative, descriptive and exploratory, cross-sectional study. For collection, the DATASUS database was used, based on information regarding the cause of intentional self-harm codes X60 to X84, based on the 10th revision of the International Statistical Classification of Diseases and Related Health Problems.

**Results:** It was observed that in Brazil, among elderly people of both sexes, the highest suicide rates are found in the age group of 60 to 69 years, with the general proportion of suicides being higher in the male population. Furthermore, the Southeast Region had the highest number of notifications, while the North Region of the country had the lowest. The age group equal to or greater than 80 years, presented the highest number of cases in the South Region.

**Conclusion:** Suicide notifications are an alarm for understanding the risk factors that must be carefully identified through a broader look at issues of mental health in the elderly. This information makes it possible to understand the current scenario of deaths by region to detect populations with a higher incidence and understand the binomial of mental health and aging.

**Keywords:** Suicide; Elderly; Epidemiology

### **P50: Elderly centenarians and the COVID-19 pandemic: integrative literature review.**

**Authors:** Luana G. Lino, Keila CT Cruz, PhD

**Introduction:** Aging is a global phenomenon that can be explained, in short, by improvements in living conditions, which leads to an increase in life expectancy, combined with a reduction in recorded fertility rates. In this sense, it is understood that due to some biopsychosocial determinants, some individuals live much longer than the rest of the population, as is the case of elderly centenarians and this is the focus of this study. It is known that the COVID-19 pandemic scenario was challenging for the elderly population. In this sense, the study aims to analyze the production of national and international knowledge of research articles on the COVID-19 pandemic for centenarian elderly people

**Method:** This is an integrative literature review, carried out in six stages: selection of the research question; literature search; categorization of studies; evaluation of studies included in the review; interpretation of results and presentation of the review. The research question was developed according to the PICO strategy. The population refers to elderly centenarians (P); the intervention concerns the COVID-19 pandemic scenario (I); the comparison group is not applicable in this study (C) and the outcome refers to bibliographical productions about elderly centenarians from 2020 onwards (O). The search strategy was carried out on the PubMed/MEDLINE and LILACS platforms. The articles found were exported to the Mendeley Desktop program to exclude duplicates. Soon after, they were transported to a spreadsheet in Microsoft Excel®. After that, the articles were analyzed, categorized and organized in a table format to facilitate the discussion of the results found. The data obtained so far is controversial regarding mortality and resilience of centenarians to SARS-CoV-2. These results are justified, in part, due to the uniqueness of each elderly person who can respond in a unique way to SARS-CoV-2. Results: After applying the search criteria, 18 articles were selected for full reading. After that, according to the established inclusion criteria, eight articles were selected for this review. Studies were found from Italy, Germany, Brazil, Belgium, Canada, China and France. The mortality/resilience of centenarians to SARS-CoV-2 was the most discussed topic among the publications. The relationship between the Spanish flu pandemic in 1918 and the COVID-19 pandemic in 2020 was also addressed in three publications. Supercentenarians (>110 years old) were the subject of study in two publications. Analyses of immunological and/or genetic studies were also found. Supercentenarians appear to possess some kind of resilience against SARS-CoV-2. The most accepted hypothesis



to justify this fact is the association between exposure to the Influenza virus, which caused the Spanish flu pandemic in 1918, and resilience to SARS-CoV-2. Only one of the studies found took place in Brazil.

**Conclusion:** The topic deserves to be better addressed, as considering the potential increase in the number of centenarians in the future, the lessons learned from the COVID-19 pandemic should help the management and care of this population in the event of a new infectious disease.

**Keywords:** Centenary; “Aged, 80 and over”; COVID-19; “sars-cov-2 infection”

### **P51: Sociodemographic and Clinical Insights into Behavioral Variant Frontotemporal Dementia and Early-Onset Alzheimer’s Disease in Colombia: A Comprehensive Study of Patients and Caregivers**

**Authors:** Lina M. Zapata-Restrepo<sup>1,2,3</sup>, Katherine Possin<sup>3</sup>, Isabel E Allen<sup>3</sup>, Juan C Rivas<sup>1,2,4</sup>, Carlos A Dorado<sup>1,2,4</sup>, Carlos Miranda<sup>4</sup>, Maria Mercedes Cardozo<sup>1</sup>, Agustin Ibanez<sup>3,5</sup>

1. Fundación Valle del Lili, Cali, Colombia.
2. Universidad Icesi, Cali, Colombia.
3. Global Brain Health Institute - University of California San Francisco and Trinity College Dublin.
4. Hospital Departamental Psiquiátrico Universitario del Valle - Universidad del Valle, Cali, Colombia.
5. BrainLat, Santiago de Chile, Chile.

**Objective:** As life expectancy continues to rise globally, the prevalence of dementia is also increasing. However, there is a lack of studies in Latin American countries that describe the sociodemographic and clinical characteristics of dementia patients and their caregivers, potentially overlooking important differences that could impact diagnosis in a diverse population. This study aims to elucidate the sociodemographic characteristics of patients with Behavioral Variant Frontotemporal Dementia (bvFTD) and Early-Onset Alzheimer’s Disease (AD), as well as their primary caregivers in Colombia, while also examining the clinical presentation of dementia.

**Methods:** A total of 83 Colombian participants were included in the study, consisting of 40 healthy controls and 43 individuals previously diagnosed with bvFTD (n = 20) and early-onset AD (n = 23). Diagnoses were established based on the current diagnostic criteria for both conditions. Participants underwent sociodemographic assessments, and a clinical evaluation was conducted. Additionally, caregivers were characterized sociodemographically.

**Results:** Most participants were female (67%) with a mean age of 63 years. Educational levels were comparable between the dementia group (12.4 years) and the control group (12.9 years). A higher proportion of dementia cases were observed in lower socioeconomic status categories (1 to 3). Past medical history of hypertension, type 2 diabetes, and traumatic brain injury was more prevalent in the bvFTD group, whereas coronary disease was more common in the AD group. Initial psychiatric misdiagnosis occurred more frequently in bvFTD (50%) compared to AD (26%), with depression being the most common misdiagnosis in both groups (37.5%), followed by bipolar disorder (25%) and anxiety (25%). Most caregivers were female (70%) with a mean age of 50 years. The most common caregiver-patient relationships were daughter (25.6%) and husband (25.6%), followed by wife (23.3%). The mean educational level of bvFTD caregivers (13.95) was higher than that of AD caregivers (12.87).

**Conclusion:** These findings provide valuable insights into the sociodemographic characteristics of dementia patients and their caregivers in Latin America, a population that is often underrepresented in research. Further exploration of diagnostic variations may be warranted, given the high prevalence of misdiagnosis in this region.

## **Poster Session 2:**

### **P1: Clinical value of plasma soluble TREM2 in identifying mild cognitive impairment: A community-based study of the Chinese elderly**

**Authors:** Anqi Huang, Lan Wang

Mental Health Center, The First Hospital of Hebei Medical University, Shijiazhuang, Hebei 050031

**Objectives:** To clarify that correlation in plasma soluble TREM2 (sTREM2) and cognitive function between mild cognitive impairment (MCI) and normal cognitive function in a Chinese community population, and further to explore whether plasma sTREM2 can be used as a blood biomarker to predict and identify MCI.

**Methods:** This study included 216 community elderly people in Shijiazhuang and Xingtai City, Hebei Province, including 106 MCI and 110 normal cognitive function (NC) subjects. The Montreal cognitive assessment (MoCA) was used, mini mental state examination (MMSE), Boston naming test (BNT), digit span test (DST) to evaluate the cognitive functions of all subjects. Fasting venous blood was collected at the same time, and ELISA was used to detect A $\beta$ 42, A $\beta$ 40, P-Tau217, P-Tau231, TREM2, sTREM2 concentration. Use software based on SPSS26.0 to analyze the data.

**Results:** 1. The level of sTREM2 in the MCI group was higher than that in NC group, and the difference was statistically significant ( $H = 4312.0$ ,  $P = 0.001$ ). There was no statistical significance in the difference of the other index between two groups ( $P > 0.05$ ). 2. Correlation analysis showed that sTREM2 was negatively correlated with P-tau217, education level, MMSE, MoCA, BNT, and DST ( $P < 0.05$ ). TREM2 was positively correlated with P-tau217 and A $\beta$ 42 ( $P < 0.05$ ). 3. Incorporate whether it was MCI as the dependent variable, gender, age, education level, living style, and the above blood indicators as independent variables in binary logistic regression analysis. The results showed that sTREM2 was a risk factor for MCI ( $OR = 1.009$ ,  $95\%CI = 1.002-1.016$ ,  $P = 0.015$ ), junior high school education or above was a protective factor for MCI ( $OR = 6.133$ ,  $95\%CI = 2.651-14.189$ ,  $P < 0.001$ ). 4. The area under the ROC curve of sTREM2 was 0.630 (sensitivity 0.472, specificity 0.782), and the area under the ROC curve of sTREM2 combined with MMSE was 0.849 (sensitivity 0.679, specificity 0.873).

**Conclusion:** sTREM2 is a risk factor for cognitive function decline in MCI. Plasma sTREM2 levels combined with the cognitive function assessment scale have good clinical value in identifying mild cognitive impairment.

**Keywords:** sTREM2, Mild Cognitive Impairment, Plasma

### **P2: Comparing the Pattern of Psychiatric Diagnosis of Elderly in the Outpatient and Inpatient Setting Cipto Mangunkusumo Hospital Indonesia**

**Authors:** Leonardo Alfonsius Paulus Lalenoh, Martina Wiwie Setiawan, Profitasari Kusumaningrum

**Background:** Given to the implementation of the Indonesian national health insurance system, there is an increasing trend of elderly patients accessing the health care services, including private clinic, public health care service and hospital setting. In hospital setting alone, there are separate units in which the patient might have

vary access for each service. Therefore, it is important to highlight the pattern of diagnosis in each different setting.

**Objective:** The objective of this study is to compare the prevalence of psychiatric diagnosis among elderly patients in outpatient and inpatient settings.

**Methods:** We performed a cross-sectional data collection using the available registry in our in-patient and out-patient setting. We limit the search of data collection during the year of 2023. For in-patient setting, we stratified the pattern from the acute care and reference to consultation.

**Results:** We collected the data from the registry of patients, as many as 859 patients in out-patient setting and 803 elderly in-patient settings during the year of 2023. The out-patient setting consists of 56.9% of female, with average age of  $70.42 \pm 7.1$  years. The in-patient setting consists of 56.2% of female with average age of  $69.36 \pm 7.4$  years for total population. From out-patient setting, the top three diagnoses are depression (32.2%), mild cognitive impairment (9%) and Bipolar (7.7%). In the acute care setting, adjustment disorder (39.5%), delirium (33.2%), and depression (8.9%). From the patients referred for consultation, 40.3% diagnosed with delirium, 30.7% with adjustment disorder and 10.0% with depression.

**Conclusion:** From these results, depression is in the top three diagnosis in every clinical setting. Delirium is the highest prevalence among elderly patients referred to psychiatry. It is therefore a comprehensive care is imperative to ensure the continuity of care of patients visiting the hospital.

**Keywords:** diagnosis, pattern, elderly, inpatient, outpatient

### **P3: Clinical Improvement Analysis using Montgomery-Åsberg Depression Rating Scale (MADRS) for Outpatient Elderly using Antidepressant Medication in Cipto Mangunkusumo National General Referral Hospital**

**Authors:** Martina Wiwie Setiawan, Profitasari Kusumaningrum, Leonardo Alfonsius Paulus Lalench

**Background:** Clinical outcome is one of the indicators for treatment effect in specific populations such as the elderly. Depression is manifested as the result of biological, psychological, and social factors which are interrelated in the symptoms of low mood, energy, and motivation. In specific population of elderly, depression is related to the issue of loneliness and may impact the quality of life, as well as the progression of other medical comorbidities. Therefore, it is important to monitor the progress of treatment among the elderly.

**Objective:** The objective of this study is to observe clinical improvement of depressive symptoms through the Montgomery-Åsberg Depression Rating Scale (MADRS).

**Methods:** This is an observational cohort study conducted in the outpatient clinic setting. The data was collected after one month of follow-up. Each patient was assessed using the MADRS questionnaire in every clinical encounter. The MADRS scores were analysed statistically using descriptive and dependent variable analysis.

**Results:** We collected 304 data of patients using MADRS as part of the clinical measurement. The average age is  $69.98 \pm 6.6$  years old. From gender distribution, 57.6% are female and 42.4% are male. From one-month follow-up, 37.8% of patients showed improvement of MADRS score and 39.1% remains the same from the previous visit.

Statistical analysis showed significant change of MADRS score after follow-up, indicating the importance of routine visit and monitoring for elderly showing symptoms of depression.

**Conclusion:** Psychometric evaluation is an essential component for observing the clinical improvement for elderly with symptoms of depression.

**Keywords:** clinical, depression, elderly, inpatient

#### **P4: Physical-Frailty as impairment of the functional status in older people after a COVID-19 outbreak: Descriptive Study in a Long-Stay Facility in Chile**

**Authors:** Lidia Castillo-Mariqueo<sup>1</sup>; Alejandro Aedo Lagos<sup>2</sup>; Lydia Giménez-Llort<sup>3,4</sup>; Nefalí Guzmán Oyarzo<sup>5</sup>

1. Carrera de Kinesiología, Departamento de Procesos Terapéuticos, Facultad de Ciencias de la Salud, Universidad Católica de Temuco, Chile
2. Establecimiento de Larga Estadía para el Adulto Mayor (ELEAM) Santa Isabel de Traiguén, Chile
3. Institut de Neurociències, Universitat Autònoma de Barcelona, Barcelona.
4. Department of Psychiatry and Forensic Medicine, School of Medicine, Universitat Autònoma de Barcelona, Barcelona, Spain
5. Laboratorio de Investigación en Salud de Precisión, Departamento de Procesos Diagnósticos y Evaluación, Facultad de Ciencias de la Salud, Universidad Católica de Temuco, Chile

**Introduction:** Frailty is a common condition among older individuals and is associated with increased vulnerability to adverse health outcomes. The COVID-19 pandemic has further highlighted the impact of viral infections on frail individuals.

**Objectives:** This study assessed the functional and clinical analysis changes in frail patients before and after SARS-CoV-2. This study evaluated the functional and clinical changes in frailty patients before and after SARS-CoV-2 infection in a cohort of 20 frailty patients of a long-stay facility.

**Methods:** Demographic, clinical, and functional data, including the Barthel index, Katz index, and Mini-Mental Examination, were collected. Clinical analyses were also conducted, including a complete blood count and biochemical profile. The functional and clinical analyses were compared before and after SARS-CoV-2 infection using t-tests. Pearson's correlation was used to analyze the relationship between functionality, frailty, and clinical biomarkers.

**Results:** The cohort had a mean age of  $84 \pm 2.42$  years, with 80% female. The most common comorbidities were Arterial Hypertension, Diabetes Mellitus type II, and Alzheimer's disease. The functional assessment showed a significant increase in functional dependence on basic activities of daily living after the SARS-CoV-2 infection. Significant differences were also observed in grooming, bowel, and bladder control. Clinical biomarkers, such as albumin, showed substantial changes post-infection.

**Conclusions:** The findings indicate worsening functional dependence and changes in clinical biomarkers after an illness. These results emphasize the need for targeted interventions and support for frail individuals during viral outbreaks. Further research is warranted to explore the long-term consequences of COVID-19 on frailty and develop strategies to mitigate its impact.

**Keywords:** Frailty, COVID-19, SARS-CoV-2, functionality, disability

### **P5: Functional relationship between muscle strength, gait speed, and cognitive function in elderly people with cognitive impairment: a descriptive cross-sectional observational study**

**Author:** Camila Pimentel; Cristofer Sáez<sup>1</sup>; Lissethe Torres<sup>1</sup>; Christian Beyle<sup>2</sup>; Sandoval Lidia Castillo-Mariqueo<sup>1,3</sup>

1. Carrera de Kinesiología, Facultad de Ciencias de la Salud, Universidad Católica de Temuco, Chile
2. Departamento de Psicología. Facultad de Ciencias de la Salud, Universidad Católica de Temuco, Chile
3. Departamento de Procesos Terapéuticos. Facultad de Ciencias de la Salud, Universidad Católica de Temuco, Chile

**Introduction:** Cognitive function has traditionally been associated with mental abilities, but there are reports that it may be associated with performance in physical function and even in ADLs. This relationship between the mental and the physical raises important questions about comprehensive health across the life course.

**Method:** A cross-sectional descriptive observational study was carried out with correlation analysis between the main variables under study. The purpose of the research was to establish the functional relationship between muscle strength, gait speed, and cognitive functions in elderly people with or without cognitive impairments at 55 years of age. Cognitive function (MOCA), ABVD (Barthel index), IADL (Lawton and Brody questionnaire), and anthropometric and physical function variables were studied. A descriptive and inferential analysis of the data obtained was performed together with a correlation analysis to establish the functional relationship between the groups of variables. Ethical safeguards were taken in all cases, and informed consent approved by the Ethics Committee of the Catholic University of Temuco, Chile, was applied.

**Results:** The primary findings of this study show that, in older individuals with or without cognitive impairment, muscle strength, gait speed, and cognitive function have a functional relationship. There is also a strong correlation between these variables' performance in the physical domain. In addition, sex-associated differences were detected that are relevant to study and investigate in further studies. The effect of aging was differentiated in the case of women (younger than 75 years and older than 75 years) without detecting significant differences, but there was a tendency to increase deterioration with increasing cognitive and physical age.

**Conclusions:** Cognitive function is related to physical performance variables, and these may be predictors of aging as attenuators or aggravators. Therefore, it is of utmost importance to consider the interrelationship of these variables when addressing the health and well-being of this population. It is necessary to investigate aspects that generate preventive actions aimed at healthy and active aging, especially in the performance of cognitive function related to activities of daily living (basic and instrumental).

**Keywords:** Cognitive impairment; Executive functions; Basic activities of daily living (BADL); Instrumental activities of daily living (IADL).

### **P6: PREMATURE FUNCTIONAL DECLINE IN WOMEN OVER 40 YEARS OF AGE**

**Author:** Margarita Leal Jara<sup>1</sup>, Brenda Lizama Devaud<sup>1</sup>, Rossio Nain Escobar<sup>1</sup>, Daniel Alveal Mellado<sup>2</sup>, Lidia Castillo Mariqueo<sup>3</sup>

1. Carrera de Kinesiología, Universidad Católica de Temuco (UCT)

2. Instituto de Neurociencias, Departamento de psiquiatría y Medicina Legal, Universidad Autónoma de Barcelona
3. Carrera de Kinesiología, Departamento de Procesos Terapéuticos, Universidad Católica de Temuco (UCT)

**Introduction:** Early functional changes in women compromise elements such as muscle mass and strength, physical function, and gait speed, leading to a physiological decline that may contribute to frailty in old age.

**Objective:** This study aimed to relate strength and physical performance to premature functional decline in women aged 40 years and older.

**Methods:** A cross-sectional descriptive observational study was conducted, and two groups of women were contrasted (40 to 60 years old and 60 and over), completing a sample of 31 women. Functional decline, lower limb muscle power, prehensile strength, physical performance, gait speed, phenotype of frailty status, level of physical activity, and other sociodemographic factors were contrasted. The UCT internal ethics committee.

**Results:** Preliminary results showed that, among the demographic variables, women over 60 had a lower level of schooling, with 29% having incomplete basic education. Both groups reported a similar number of children: 93% in those under 60 and 100% in those over 60, with an average of 2.3 and 3.06 children, respectively. Statistically significant differences were detected in physical performance, lower limb strength, and gait speed, which were higher in women under 60.

**Conclusions:** The present report detected that lower limb strength, a determinant of great relevance in the aging population, affects gait speed. Likewise, muscle strength leads to a more rapid decline in older people. In both groups, physical performance played a crucial role in characterizing aging and frailty, particularly at ages over 60, when a decline in performance was evident. Notably, there were no variations in grip strength or physical activity levels, possibly because both groups performed poorly, raising the possibility of functional decline in women who have not yet reached old age.

**Keywords:** muscle strength, physical performance, gait speed, frailty.

## **P7: Functional relationship between locomotion and structural muscle fibers in Alzheimer's Disease, an experimental report from 3xTg-AD mice**

**Authors:** Lidia Castillo-Mariqueo<sup>1</sup>, Laura Ortega Hernández<sup>2</sup>, Rodrigo Boguen Ojeda<sup>3</sup>, Lydia Giménez Llord<sup>4,5</sup>

1. Departamento de Procesos Terapéuticos. Facultad de Ciencias de la Salud, Universidad Católica de Temuco, Chile.
2. Universidad Interserrana del Estado de Puebla – Ahuacatlan, Mexico.
3. Laboratorio de Precisión, Departamento de Procesos Diagnósticos y Evaluación. Facultad de Ciencias de la Salud, Universidad Católica de Temuco, Chile.
4. Institut de Neurociències, Universitat Autònoma de Barcelona, Barcelona.
5. Department of Psychiatry and Forensic Medicine, School of Medicine, Universitat Autònoma de Barcelona, Barcelona, Spain

**Introduction:** Motor impairment remains underexplored in Alzheimer's disease. We previously described the functional impairment of gait and exploratory activity of male 3xTg-AD mice at different stages of Alzheimer's disease progression. We describe movement limitations and muscle weakness as indicators of severity.

**Methods:** In the present report, a cross-sectional study was carried out that analyzed the muscular structure of the quadriceps and triceps surae muscles of transgenic (3xTg-AD) and non-transgenic males in the early (6 months), intermediate (12 months), and advanced (16 months) stages of Alzheimer's disease. Longitudinal

sections of the quadriceps and triceps surae stained with hematoxylin and eosin (H&E) were evaluated. Using conventional histological techniques, they were then rinsed with PBS, pH 7.4. For the F-actin immunohistochemistry, the sections were blocked by incubating them in IgG-free 2% bovine serum albumin (BSA, Sigma) for 60 min. Then specimens were incubated for 10 minutes with 0.2% Triton X-100 in PBS at room temperature. The slides were incubated overnight at 4 °C with F-actin (Santa Cruz Biotechnology Inc., CA, USA). Slides were counterstained with VectaShield using 4, 60-diamino-2-phenylindole dihydrochloride (DAPI) (Vector Labs., CA, USA) for nuclei staining and visualized in the blue channel.

**Results:** Lower fluorescence labeling was detected in 3xTg-AD mice at all ages, with a greater decline at older ages. Signs of sarcopenia are also present in an advanced stage of AD, with differences in fiber distribution, the number of cell nuclei, and the presence of adipose tissue.

**Conclusion:** The previously reported gait alterations in Alzheimer's disease could be the result of structural deficiencies due to sarcopenia and poor muscle contraction, which leads to the limitations of movement in locomotion reported in 3xTg-AD mice.

**Keywords:** 3xTg-AD, Alzheimer's disease, locomotion, muscular strength, muscle fibers

### **P8: Subjective memory correlates with hippocampal subfield volumes in normal cognitive aging**

**Authors:** Linda Mah, MD, MHSc<sup>1,3</sup>, Susan Vandermorris, PhD CPsych<sup>2</sup>, Nicolaas Paul L.G. Verhoeff, MD, PhD<sup>2,3</sup> and Nathan Herrmann, MD, FRCPC<sup>3</sup>

1. Rotman Research Institute, Baycrest Health Science Centre, Toronto, ON, Canada
2. Baycrest Health Sciences, Toronto, ON, Canada,
3. Psychiatry, University of Toronto, Toronto, ON, Canada

**Objective:** Subjective memory concerns are associated with increased risk for Alzheimer's disease (AD). Self-perception of frequency of memory slips, in particular, correlates with neuroimaging markers of AD including cerebral amyloid deposition and functional connectivity of the hippocampus and posterior default mode network. The hippocampal complex includes functionally and structurally distinct subfields (cornu ammonis (CA), dentate gyrus, and subiculum) which show selective atrophy in aging and in AD, as well as psychiatric conditions such as major depressive disorder. In the current study, we measured hippocampal subfield volumes in cognitively unimpaired older adults and examined their association with frequency of forgetting and verbal memory.

**Methods:** Participants were 51 older adults (23M, age 71.0 SD = 6.3) with normal neuropsychological test performance who completed the Memory Functioning Questionnaire (MFQ) and a high-resolution T2-weighted scan of the medial temporal lobe at 3T. The Automatic Segmentation of Hippocampal Subfields (ASHS) processing pipeline was used to extract CA1, CA2, CA3, dentate gyrus, and subiculum volumes. Partial correlations were performed within the total sample to examine the association between subfield volumes and MFQ Frequency of Forgetting ("How often do you....?") subscale scores, which has been linked to AD neuroimaging markers,<sup>19–21</sup> as well as long delayed recall scores on the California Verbal Learning Test (CVLT-LDR). Covariates were age, sex, and total intracranial volume.

**Results:** Frequency of Forgetting was significantly correlated with left CA2 [ $r = .42, P = .003$ ] and right subicular volume [ $r = .45, P = .001$ ] In contrast, CVLT-LDR was not correlated with any hippocampal subfield volume. No other hippocampal subfield volumes were correlated with Frequency of Forgetting.

**Conclusions:** The associations between subicular volume, a region implicated in AD, and subjective, but not objective memory, suggests that self-perception of frequency of memory lapses in daily life may be sensitive to subtle, early AD-related volumetric changes within the hippocampus. The similar dissociation found for CA2, a region linked to social memory in animal models, is noteworthy. These findings suggest potential neuroanatomical mechanisms for the association between subjective memory concerns and AD risk.

### **P9: Comparison between three cognitive impairment screening tools (MMSE, MoCA and MoCA basic) for seniors with low education in primary care in Brazil**

**Authors:** Livio Rodrigues Leal, MD, Marcos Hortes N. Chagas, Rebeca Pessoa, Natalia M. Souza

**Objectives:** Compare the psychometric characteristics of three brief screening instruments - Mini Mental State Examination (MMSE), Montreal Cognitive Assessment (MoCA) and its basic version (MoCA basic), for early detecting mild and major neurocognitive disorder (NCD), discriminating from normal elders and provide MoCA and MoCA basic norms and accuracy data for seniors with a lower education level, including illiterates.

**Methods:** Cross-sectional study, with 60 years or older community dwelling individuals, submitted to diagnostic interviews (according to DSM-5) and screening tests. Of a total of 271 elderly interviewed, 59 had mild and 32 had major NCD. A sum of 266 MMSE; 104 MoCA and 81 MoCA basic were applied. Area under the ROC curve (AUC) was determined for all three tests, and sensitivity (S), specificity (E) and cutoff score (CS) for the last two were determined.

**Results:** The total scores varied significantly according to age and education ( $p < 0.01$ ). MMSE had a high discriminative validity – AUC for normal vs major NCD = 0,915 ( $p < 0.001$ ; 95% CI 0,868–0,963) and regular for normal vs mild NCD = 0,706 ( $p < 0.001$ ; 95% CI 0,631–0,781). MoCA demonstrated excellent discriminative validity – AUC for normal vs major NCD = 0.932 ( $p < 0.001$ ; 95% CI 0.842–1.000) and regular for mild NCD – AUC = 0.753 ( $p < 0.001$ ; 95% CI: 0.654–0.853). CS was 9 (S = 83% E = 95%) and 16 (S = 83% E = 68%). MoCA basic showed excellent discriminative validity for major NCD vs normal AUC = 0.910 ( $p < 0.001$ ; 95% CI 0.818–1.002) and good for mild NCD vs normal AUC = 0.834 ( $p < 0.001$ ; 95% CI: 0.742–0.927). CS was 21 for both conditions (S = 100% E = 72%; S = 89% E = 72%).

**Conclusions:** The MoCA and MoCA basic are valid screening instruments for cognitive assessment of low-schooled elderly people from the community, but we found different cut-off from the original and other studies. The MMSE still remains a good and useful tool. These results provide information about psychometric characteristics of the instruments for elderly with low schooling in Brazil.



### **P10: Preventable adverse events and related outcomes among people with dementia in hospital settings: Scoping review.**

**Authors:** Lucía Catalán, Deborah Oliveira, PhD

**Background:** Hospital-related negative outcomes such as reduced functional ability and mortality are significantly more frequent in people with dementia compared to other groups. Although these can result from preventable adverse events (AE) related to care standards (e.g., in-hospital falls or infection), researchers usually link such outcomes with the dementia itself. To date, it is unclear whether and the extent to which negative outcomes in hospitalised people with dementia are partly or fully due to the occurrence of AE.

**Aim:** To explore the AE endured by people with dementia in hospital settings and to determine whether and the extent to which these are associated with negative outcomes.

**Methods:** A scoping review was undertaken in line with Arksey and O'Malley's framework in PUBMED, Web of Science, CINAHL, and Scopus in October 2023. Primary studies in English, Spanish, or Portuguese published in peer-reviewed journals were eligible.

**Results:** Of the 1,976 retrieved documents, 16 were included. Considering all studies and AE together, people with dementia had between 2.8 to 5.2 times higher risk of having an AE compared to people without dementia. In non-surgical settings, the most frequently reported AE were falls, delirium, and infections, while in surgical settings, these included postoperative delirium, infections, and other complications. Longer hospital stay, increased healthcare costs, higher risk of discharge to residential care (vs. home), and increased mortality were significantly more frequent in people with dementia. The link between the AE and negative outcomes was explored in three studies: longer hospital stay was linked to having endured a fall, delirium, or pneumonia as AE; higher risk of 90-day readmission was linked to having had delirium, and higher mortality was found in those with a hip fracture due to an in-hospital fall.

**Conclusion:** AE are more common in people with dementia compared to other hospitalised groups and may be largely responsible for the negative outcomes found in this population. However, current evidence is limited and does not allow for this relationship to be confidently established. Future research should further explore such associations with the goal to improve care and safety for people with dementia in hospital settings.

### **P11: Changes in sexual activity and sexual satisfaction: views of people with dementia and their spouse-carers**

**Authors:** Marcela M. Lima Nogueira, Tatiana Belfort, Isabel Lacerda, Maria Alice Baptista, Michelle Cristina Mattoso Brandt, II, MS, Marcia Dourado

**Introduction:** The progression of dementia may be followed by decreased sexual activity for People with Alzheimer's Disease (PwAD) and their spouse-carers. The aim of this study was to investigate the perception of change in sexual activity and sexual satisfaction among couples whose spouses were diagnosed with Alzheimer's Disease (AD).

**Methods:** Using a cross-sectional design, we compared 74 dyads of people with Alzheimer's disease (PwAD) and their spouse-carers, and 21 elderly dyads control. We assessed sexual satisfaction with Questionnaire on Sexual Experience and Satisfaction (QSES), cognition using a Mini-Mental State Examination (MMSE), disease severity using a Clinical Dementia Rating scale (CDR), awareness of disease with Assessment Scale of Psychosocial Impact of the Diagnosis of Dementia (ASPIDD), functionality with Pfeffer Functional Activities Questionnaire (FAQ), depressive symptoms with Cornell Scale for Depression in Dementia (CSDD), quality of life using a Quality of Life in Alzheimer's Disease Scale (QoL-AD), and burden using a Zarit Burden Interview (ZBI). Univariate and multivariate regression analyses were conducted to identify the factors that influenced couples' sexual satisfaction.

**Results:** We found a significant difference between the perception and no perception of change in sexual activity of PwAD ( $p < 0.001$ ), spouse-carers ( $p < 0.01$ ), and controls ( $p < 0.05$ ). Moderate to severe sexual dissatisfaction was observed in 36.5% of PwAD, 65% of spouse-carers, and 31% of controls. The linear regression indicated that PwAD sexual satisfaction was related to cognitive impairment ( $p < 0.05$ ). Spouse-caregivers sexual satisfaction was related to gender of spouse-caregivers ( $p < 0.05$ ) and the presence of sexual activity ( $p < 0.001$ ).

**Conclusions:** The perception of change and consequent interruption of sexual activity, with higher sexual dissatisfaction, were higher in PwAD and their spouse-carers, in comparison with control group. We also found that spouse-carers experienced lower levels of sexual satisfaction than PwAD and healthy elderly couples. Moreover, PwAD sexual satisfaction was related to the level of cognitive impairment and spouse-carers' sexual satisfaction was related to gender and the presence of sexual activity.

## **P12: Empowering Caregivers and Older Adults through Educational Initiatives, Cognitive Stimulation Therapy (CST) and Eight Movement Patterns of Brain Dance**

Authors: Ivonne, Z. Jiménez-Velázquez, MD<sup>1</sup>, María E. Bidot, EdD<sup>2</sup>, María J. Rodríguez, MPHE<sup>2</sup>

1. Department of Medicine, Medical Sciences Campus, University of Puerto Rico
2. Geriatrics Research and Education Center, Department of Medicine, Medical Sciences Campus, University of Puerto Rico

**Background and Aims:** The growth of the elderly population poses challenges and opportunities in society. As we age, normal changes occur that can affect functionality and independence. Aging is associated with brain changes that result in cognitive decline. The most common cause of cognitive decline among the elderly is Alzheimer's disease (AD). It is characterized by a progressive spectrum of memory problems that affect the functional capacity of the elderly and their ability to perform activities of daily living, increasing the level of dependence and the social, emotional, and economic burden on caregivers. Alzheimer's disease is the 6th leading cause of death in the United States and the 4th leading cause of death in Puerto Rico. These challenges can only be addressed through clinical research for managing conditions, non-pharmacological treatments and therapies, and educational initiatives covering basic aspects of geriatrics aimed at healthcare professionals, direct service providers, and caregivers. These efforts will provide effective management alternatives when intervening with the elderly population and the public. The aims are: to discuss the educational initiative with Dominican caregivers, to review advances in Alzheimer's disease research, to present the translation and cultural validation of Cognitive Stimulation Therapy as a non-pharmacological intervention for patients in the early stages of MCI and Alzheimer's, and to raise awareness about the importance of physical literacy through the eight (8) Movement Patterns of Brain Dance for older adults.

### **P13: Promoting the Health of Older Adults through the BrainDance at the Multiple Activities Center for the Elderly (CAMPEA) in Santa Mónica, Bayamón (March-May 2023)**

**Authors:** María J. Rodríguez, MPHE <sup>1</sup>, María E. Bidot, EdD <sup>1</sup>

1. Geriatrics Research and Education Center, Department of Medicine, Medical Sciences Campus, University of Puerto Rico

**Background and Aim:** Puerto Rico is experiencing a rapidly aging society. In old age, it is common to experience one or more chronic diseases that require special attention. If not properly addressed, these health conditions can reduce functionality in daily activities. Some risk factors that can affect health and functionality include sedentary lifestyle, social isolation, and unhealthy lifestyles. To reduce these risk factors, it is necessary to implement health promotion measures aimed at improving the well-being of older adults. Brain Dance has a positive impact on the health of older adults. Its benefits include increasing circulation, reorganizing the neurological system, reducing stress, maintaining joint flexibility, and being aware of the communication between body and mind. The aim was to promote the health of older adults through the 8 Movement Patterns of Brain Dance at CAMPEA, Santa Monica, Bayamón, during the months of March to May 2023.

**Method:** A collaboration agreement was established between the Geriatric Research and Education Center and CAMPEA to train older adults and service providers on the benefits of Brain Dance, and educational materials were provided to complement the activities.

**Results:** The program was implemented as designed. A total of 12 older adults, 60+ practiced Brain Dance and 6 direct services providers were trained on the benefits of Brain Dance in older adults. An infographic with the Eight Movements Patterns was designed and distributed to older adults and services providers.

**Conclusion:** Older adults reported that engaging in Brain Dance helped them to increase their confidence, bring back memories from the past, strengthen their group interactions, gain new knowledge, develop new skills, self-discover, pay greater attention to the connection between their mind and body, and achieve a state of joy.

**Key words:** older adults, health promotion, brain dance

### **P14: From Crisis to Care: Implementing Shared Decision-Making in Psychogeriatric Practice**

**Authors:** Marina Guitti De Souza, MD, Clara D. De Araújo, Clarissa De Rosalmeida Dantas, Cláudio Eduardo Muller Banzato

**Objective:** Shared decision-making (SDM) is a promising approach to promote patient and person-centeredness in psychiatric clinical practice. Despite being an ethical requirement, implementing SDM might be challenging, particularly for patients with severe mental illnesses who may not always be recognized as having decision-making capacity, leading to physicians often taking control.

**Methods:** Case Report.

**Results:** Mrs. D, an 84-year-old Caucasian woman with a history of multiple depressive episodes since age 24 and hypertension, was brought to the Emergency Department by her daughters due to weight loss, depressed mood, hopelessness, anhedonia. She repeated that she had no heart and expressed fears of being hospitalized, believing

doctors would remove her organs, which were no longer working, and described her arms as crumbling like sand. She was initially assessed for food refusal and delusional nihilistic thoughts, which started four months prior to presenting to the hospital after discontinuation of lithium carbonate due to intoxication and got progressively worse.

The patient met the criteria for MDD with Cotard Syndrome. Recommended treatments included ECT and pharmacotherapy. During her first ECT session, she presented a 10-second post-seizure asystole. After reevaluating her treatment, her daughters asked about alternatives. Although there were no contraindications to ECT treatment, the team, in collaboration with family members, explored options. A therapeutic strategy with venlafaxine, mirtazapine, olanzapine, aripiprazole, lithium carbonate, subcutaneous dextroamphetamine was implemented.

Two months later, following 15 dextroamphetamine infusions, she showed partial resolution of symptoms and was discharged with no delusional content in speech. She continued outpatient dextroamphetamine infusions and achieved complete symptom remission within six months, regaining her autonomy and returning to gardening. After remission, the patient expressed a desire to avoid ECT if possible, should it be indicated in the future.

**Conclusion:** This report highlights the potential of SDM to explore and discuss scenarios during the informed consent process and gather information on the patient's preferences in the event of a temporary decrease in capacity. SDM with elderly can be supported by advance care planning and directives, decision aids, training clinical staff, encouraging patient questions. Key steps include creating decision aids, training staff, and familiarizing older adults with SDM.

### **P15: Chronobiological assessment of stable elderly individuals with type I bipolar disorder**

**Authors:** Mateus T. Moura, Flávio V. Machado, Gabriela L. Martins, Lair S. Gonçalves, Jussane C. Mendonça, Einstein F. Camargos, Otávio T. Nóbrega

**Objective:** Evaluate the chronobiological rhythm of elderly people with type I bipolar disorder (BD), stable and without dementia, compared to controls.

**Methods:** A cross-sectional study was performed with 20 patients diagnosed with type I bipolar disorder, diagnosed according to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, and 20 controls. Actigraphic records were gathered from all participants over 7 days, besides clinical and demographic information. Non-parametric chronobiological measurements were calculated to evaluate the activity-rest cycle. Comparisons between groups were evaluated using Student's t-test or Mann-Whitney test, for data with normal and non-normal distribution, respectively. All procedures were conducted following the principles outlined in the Declaration of Helsinki.

**Results:** Compared to controls, patients with type I BD exhibited lower M10 values, which represent the average activity during the 10 hours of peak movement within 24 hours. Additionally, they showed increased daytime and nighttime inactivity, decreased exposure to nighttime light, and higher sleep fragmentation, as evaluated by the Hurst exponent. No differences were observed between the groups about L5 values, a parameter that indicates the average activity time in the 5 hours of least activity within 24 hours, exposure to daylight, and autocorrelation, a measure that assesses sleep synchronization.

**Conclusion:** Differences in chronobiological patterns were observed between elderly patients with type I BD and controls. In general, patients exhibited reduced activity levels, both during the daytime and nighttime. These findings may be related to the progression of the disease, as well as prolonged exposure to medications to treat BD, such as mood stabilizers and antipsychotics. The increased sleep fragmentation observed in patients may also be associated with these factors. To date, there is a lack of data assessing the chronobiological rhythm and sleep patterns in elderly individuals with TB, underscoring the need for further studies involving this population.

### **P16: Impact of perceived sleep quality and sleep aid use on mortality risk: the Brazilian Longitudinal Study of Aging.**

**Authors:** Renatha Verissimo Guedes Soares, Maria Fernanda Lima-Costa, Cleusa Pinheiro Ferri, Matheus Ghossain Barbosa, PhD

**Objectives:** Insomnia, defined by sleep initiation or maintenance difficulties, is linked to fatigue, depression, and chronic diseases. Though non-pharmacological treatment approaches are preferred, drugs like benzodiazepines and Z drugs are commonly prescribed, despite significant risks. Hypnotics, used by 9% of the general population and 11.9% of older women, can lead to severe side effects, especially among the elderly, including falls and increased mortality. This study aims to assess sleep quality, hypnotic use, and their impact on mortality among Brazilian older adults.

**Methods:** Using data from 8,004 cases from the Brazilian Longitudinal Study of Aging and sleep measures were collected from the first wave (2015–2016), and mortality data from the second wave (2019–2021). A cox hazard model was performed to analyze self-reported sleep quality (Likert scale from very poor to very good, and one yes/no question evaluating whether the individual had restful sleep for the most part of the past week) and sleeping pill use (past month frequency) in relation to mortality risk. Covariates included age, sex, marital status, education, income, comorbidities, smoking, alcohol consumption, and physical activity level.

**Results:** We found no association between self-reported sleep quality or experiencing restful and mortality risk after 4-6 years. On the other hand, when compared to individuals who did not take sleeping pills during the past month, hazard ratios (HR) for death were, respectively, 1.79 (1.11–2.88,  $p = 0.016$ ) and 1.31 (1.03–1.65,  $p = 0.026$ ) for those who took medication 1–2 times a week and those who took medication 3 or more times a week. Taking sleeping pills less than once a week had no association with mortality. While the top 3 mortality causes for individuals who did not use sleeping pills were stroke, myocardial infarction and diabetes, the top 3 causes for heavy users were myocardial infarction, lung cancer and chronic obstructive pulmonary disease.

**Conclusion:** Insomnia must be adequately treated, but awareness of medication risks is vital. This study highlights higher mortality risk with frequent sedative-hypnotic use in older adults. Warranting non-drug treatments and careful hypnotic use could enhance health outcomes.

## **P17: The Efficacy of a Novel Multimodal Personalized Physical and Cognitive Training System for Neurocognitive Protection and Enhancement in Older Adults**

**Authors:** Melissa S.L. Ng<sup>1</sup>, Lee Tih Shih<sup>1,2</sup>

1. Neuroscience and Behavioural Disorders Programme, Duke-NUS Medical School, 8 College Road, Singapore

2. Department of Psychiatry, Singapore General Hospital, Outram Road, Singapore

**Summary:** Age-related neurocognitive decline is often an irreversible health issue from onset. The concomitant costs could be exponential if left unchecked. There is a need to be able to delay the onset of age-related neurocognitive decline or possibly avoid it altogether. Previous studies have shown that there is a strong positive relationship between the fitness of neurocognitive function and cognitive training. Our laboratory conducted two pilot trials (Lee et al., 2013 & 2015) and one larger scale randomised controlled trial (RCT) (Yeo et al., 2018) investigating the usability and efficacy of a brain-computer interface (BCI) based attention and memory cognitive training system on older adults between ages 60 to 80. The participants across all three trials found the different iterations of our attention-memory training system to be usable and acceptable, with adherence rates surpassing 90%.

Interestingly, a growing number of studies suggest combined cognitive training and physical activity may result in a better neurocognitive outcome as compared to only cognitive training. Combining the insights from those studies and our previous trials, we developed a novel personalized multimodal BCI-based cognitive and physical training system, NeeuroCycle, for neurocognitive protection and enhancement in older adults. NeeuroCycle comprises of a stationary recumbent bicycle and a gamified cognitive training system paired with real-time frontal electroencephalogram (EEG) neurofeedback. The cognitive training program consists of six different tasks that target attention, immediate/working and delayed memory, decision-making, and visuospatial abilities. Certain parts of the gameplay are directly impacted by the participant's own real-time EEG signals. NeeuroCycle has also been designed to include locally relevant stimuli and designs for our Singaporean older adult participants.

Evaluation of NeeuroCycle's efficacy is ongoing. The current study employs a three-arm RCT approach (physical-and-cognitive training [mBCI], cognitive training only [nBCI], and active control [AC] groups). We hypothesise that mBCI participants will perform significantly better on cognitive assessments compared to nBCI and AC participants. Findings of the study will be presented at the IPA Congress. If tested to be effective, we expect NeeuroCycle to be an accessible, safe, and cost-effective way for older adults to maintain or improve cognitive health, which is beneficial for ageing societies.

## **P18: The capacity of Facial Expressions in Emotional Situations among Individuals with Mild and Moderate Alzheimer's Disease**

**Author(s):** Michelle Cristina Mattoso Brandt, II, MS

**Background:** The capacity to perceive and comprehend emotional situations may be impaired in individuals with Alzheimer's disease (AD).

**Purpose:** This study aimed to investigate the interpretation of emotional situations among healthy older controls (HOC) and those with mild and moderate AD.

**Research Design:** a cross-sectional design study.

**Study Sample:** A convenience sample comprising 115 participants was assessed across three contexts: understanding of the situation, ability to name the congruent emotion, and choice of the appropriate facial expression corresponding to four emotional scenarios (sadness, surprise, anger, and happiness).

**Data Collection:** Chi-square and Mann-Whitney U tests were used for comparison between groups separated by CDR 1 and 2. Chisquare and Kruskal-Wallis tests were also used for comparison between groups separated by CDR 0, 1, and 2, with a pairwise comparisons analysis.

**Results:** We found that the ability to understand, name, and choose the proper emotion is not linked and depends on the portrayed emotion. Conclusions: The findings suggest an interaction between emotional processing and cognitive functioning. Therefore, knowledge of an emotional condition and the connection to a specific facial choice most likely involves 2 degraded areas of knowledge, resulting in even higher odds of inaccuracy.

### **P19: Differences in cognitive decline in amnesic mild cognitive impairment due to primary age-related tauopathy and Alzheimer's disease**

**Author(s):** Mika Konishi, Hajime Tabuchi, Daisuke Ito, Masaru Mimura

Department of Neuropsychiatry, Keio University

Department of Neurology, Keio University

Center for Preventive Medicine, Keio University

**Objective:** Primary age-related tauopathy (PART) is associated with cognitive impairment, characterized by the presence of neurofibrillary tangles composed of tau protein, independent of amyloid plaque deposition. In this study, we examined the differences in neuropsychological assessments between PART and Alzheimer's disease (AD) over a three-year follow-up period in patients with amnesic mild cognitive impairment (amnesic MCI).

**Methods:** Ten patients (mean age = 75.9; SD = 7.0; Global Clinical Dementia Rating Scale = 0 or 0.5) were recruited from Memory Clinic at Keio University Hospital. They were classified into two groups of five patients with amnesic MCI or subjective cognitive impairment due to either PART (amyloid-/tau+) or AD (amyloid+/tau+) based on the results of [18 F]PM-PBB3 and [18F]Florbetaben Positron Emission Tomography imaging scanning. A battery of neuropsychological tests: Mini-Mental State Examination (MMSE), Alzheimer's Disease Assessment Scale (ADAS), Logical memory test of Wechsler Memory Scale-Revised, Word fluency, Trail Making Test (TMT), was administered at baseline (the first visit) and after three years.

**Results:** All patients remained as MCI (Global CDR = 0.5) at three-year follow-up. Although ADAS score was deteriorated more in AD than PART group at three-year follow-up ( $p < 0.05$ ), PART and AD groups did not differ in overall cognitive abilities including memory. However, in PART group, the TMT A & B completion time tended to be prolonged compared to AD group ( $p = 0.98$ ). On the other hand, TMT B/A indicated as executive function was indifferent in both groups.

**Conclusion:** Patterns of cognitive decline trajectory differed between PART and AD in amnesic MCI, suggesting a difference in the neuropathological course leading to progression to AD. PART may show greater decline in visuospatial attention compared to AD. It implies that PART has distinct neuropathological and clinical features compared to AD.

## **P20: Design of ADEPT-2, a phase 3, parallel group study to evaluate xanomeline and trospium as a treatment for psychosis associated with Alzheimer's disease dementia**

**Authors:** Minsu Kang<sup>1</sup>, Carolyn Watson<sup>1</sup>, Jeffrey Cummings<sup>2</sup>, George Grossberg<sup>3</sup>, Ronald Marcus<sup>1</sup>

1 Bristol Myers Squibb, Princeton, NJ

2 Department of Brain Health, University of Nevada Las Vegas School of Integrated Health Sciences, Las Vegas, NV

3 Department of Psychiatry & Behavioral Neuroscience, Saint Louis University School of Medicine, Saint Louis, MO

**Background:** Psychosis represents a major unmet medical need in patients with Alzheimer's disease (AD) dementia. With no approved medications for AD dementia psychosis (ADP), current treatment relies on off-label uses of antipsychotics with limited efficacy and significant safety concerns. Xanomeline is an M1/M4 preferring muscarinic receptor agonist that has previously been shown to have antipsychotic effects in subjects with AD (Bodick et al., 1997). While xanomeline had promising efficacy for potentially treating psychosis in AD, cholinergic adverse events limited further clinical development of xanomeline. Xanomeline and trospium is an investigational treatment that combines xanomeline with trospium, an FDA-approved non-specific muscarinic receptor antagonist. Unlike xanomeline, trospium does not measurably cross the blood-brain barrier, providing a mechanism to mitigate peripheral cholinergic effects of xanomeline while maintaining its muscarinic receptor agonist activities in the brain.

**Methods:** ADEPT-2 trial is a phase 3, randomized, double-blind, placebo-controlled, parallel group study to evaluate the safety and efficacy of xanomeline and trospium for the treatment of ADP. Subjects aged 55-90 years with moderate to severe psychosis associated with mild to severe AD dementia will be enrolled into the study. Eligible subjects will be randomized to receive either xanomeline and trospium or placebo in a double-blinded manner for 12 weeks and subjects who complete the study will be eligible to participate in a one-year, open-label safety extension study.

**Results:** The primary efficacy endpoint of the study is change from baseline to end of Week 12 in the Neuropsychiatric Inventory-Clinical (NPI-C): Hallucinations and Delusions (H+D) score and the key secondary efficacy endpoint is change from baseline to end of Week 12 in the Cohen- Mansfield Agitation Inventory (CMAI). The safety endpoints include the evaluation of safety and tolerability of xanomeline and trospium compared with placebo in subjects with ADP. The study started in 2023 and will enroll approximately 360 subjects with psychosis associated with AD dementia.

**Conclusion:** ADEPT-2 is designed to assess the safety and efficacy of xanomeline and trospium for the treatment of psychosis in patients with AD dementia. If ADEPT-2 is successful, xanomeline and trospium have the potential to be the first in a new class of pharmacologic treatment for AD psychosis based on muscarinic receptor agonism.

## **P21: The Relationship of Decision-making capacity and the age of onset in Alzheimer's Disease**

**Author:** Natalie AP Souza

**Objective:** We investigated the relationship of decision-making capacity in people with young-onset Alzheimer's Disease (YOAD) and late-onset Alzheimer's Disease (LOAD).

**Method:** Cross-sectional study, with 169 (124 people with LOAD and 45 people with YOAD).



**Results:** People with YOAD (young-onset Alzheimer’s Disease) were more cognitively impaired when compared with LOAD (late-onset Alzheimer’s Disease), but more aware of their cognitive deficits and health condition, with moderate effect sizes. All people with AD (Alzheimer’s Disease) presented deficits in the domains of decision-making capacity, with more impairment in understanding.

**Conclusion:** A higher decision-making capacity is involved in a better understanding in the YOAD (young-onset Alzheimer’s Disease) group. Clinically, our findings shed light on the need to consider the differences according to age at onset of AD (Alzheimer’s Disease).

## **P22: Perceived cognitive failures, symptoms of bipolar disorder, and psychological well-being**

**Authors:** Ophir Haglili, Norm O’Rourke

**Introduction:** Young and older adults with bipolar disorder (BD) commonly present with cognitive deficits. Many also report subjective or perceived cognitive failures.

**Objectives:** For this study, we identified four distinct clusters of adults with BD on the basis of both BD symptoms (depression and hypo/mania) and perceived cognitive errors (i.e., forgetfulness, distractibility, false triggering). We hypothesized that participants reporting more BD symptoms and cognitive errors would report lower psychological well-being (i.e., self-efficacy, life scheme, life satisfaction).

**Methods:** From the BADAS (Bipolar Affective Disorder and older Adults) Study, we identified 281 adults with BD ( $M = 44.27$  years of age, range 19–81), recruited via micro-targeted social media advertising (vs. mass marketing to general samples). All clusters significantly differed across all grouping variables except symptoms of hypo/mania due to low frequency.

**Results:** Across clusters, perceived cognitive failures and BD symptoms increased in lockstep; that is, those reporting more cognitive errors also reported significantly higher symptoms of both depression and hypo/mania. As hypothesized, they also reported significantly lower psychological well-being.

**Conclusions:** Of note, age did not significantly differ across clusters in contrast to existing research in which cognition is objectively measured. That is, perceived cognitive errors are significantly associated with lower psychological well-being for both young and older adults with BD.

## **P23: Cultural adaptations of an evidence-based mental health intervention for older adults with depression and anxiety in a low- resource setting in Peru.**

**Author:** Oscar Flores-Flores, Diego Otero-Oyague, Vanessa Patiño, Tatiana Cruz, Ivonne V. Carrión, Dafne Lastra, Alejandro Zevallos-Morales, Jose F. Parodi, PhD, Joseph J. Gallo, MD MPH, Suzanne Pollard, Lesley Steinman

**Objective:** Effectively adapting innovative mental health evidence-based community interventions is critical, yet underdeveloped, for reducing the treatment gap among older adults with depressive and anxiety symptoms. The Program to Encourage Active, Rewarding Lives (PEARLS) is an evidence-based community intervention designed to reduce symptoms of depression and improve quality of life among older adults. PEARLS includes 6-8 sessions of in-home visits of trained social workers to deliver a multi-component intervention: problem-solving, behavioral activation activities, and psychoeducation. We used the Framework for Reporting Adaptations and

Modifications-Enhanced (FRAME) to document process and changes made to adapting PEARLS, branded as VIDACTIVA (Vidas Activas y Valiosas) in an urban, low- resource community in Lima, Peru.

**Methods:** We obtained data in two stages. First, we conducted formative interviews with several stakeholders, including older adults, health professionals, community health workers (CHWs), city officials, and church leaders from the community. Second, during the iterative pilot phase, we used a mixed-methods approach, integrating interviews with fidelity assessments, field notes, and training evaluations. We employed an iterative, rapid content analytic approach to triangulate findings from multiple sources and stakeholders, allowing us to identify needed adaptations.

**Results:** We made several adaptations. Most adaptations occurred during the formative phase focused on the training plan for CHWs (VIDACTIVA delivers). We also made adaptations of the components of the intervention (problem-solving) and in the way supervision sessions were conducted. Adaptations involved researchers, CHWs, health professionals and older adults. All adaptations were fidelity-consistent with PEARLS. Due to this is the early stage of implement VIDACTIVA, the most common goal across adaptations was increased feasibility and acceptability of the intervention.

**Conclusions:** The current study is an early effort to apply FRAME in the low-income urban context in Lima, Peru. FRAME guided systematic documentation of the adaptation decision- making process while successfully balancing fidelity. These observations lend insight to continue implementation efforts of VIDACTIVA intervention, which is undergoing a pilot clinical trial.

#### **P24: Comparative Analysis of Efficacy of Intravenous Ketamine and Intranasal Esketamine in Treatment-Resistant Depression across Age Groups**

**Authors:** Charles J. Hutchison, Adriana Patricia Hermida, MD, Anahit Keshishyan, MD, Brandon Kitay, Anthony Chatham, Rachel Hershenberg, Patricio Riva Posse, MD, Patricio Riva Posse, MD

**Objective:** Intravenous ketamine (IVK) and intranasal esketamine (ESK) are increasingly used in treatment-resistant depression (TRD). There is limited data on head-to-head comparison as well as few reports on effects across age groups.

**Methods:** A retrospective chart review was conducted with patients from a specialized TRD program who received acute courses of IVK (6 infusions) (n = 113) or ESK (8 intranasal insufflations) (n = 35) between February 2017 and May 2023. Clinical response (defined as 50% decrease in mood scores) and symptomatic improvement were assessed using Beck Depression Inventory (BDI). An analysis was conducted between patients younger or older than 60 years.

**Results:** In IVK, patients under 60 (n = 57; 58.1% female; mean age 44.4 ( ± 9.8)) had 22.8% response (BDI at infusion 1: 30.4 ( ± 9.70); infusion 6: 21.2 ( ± 10.9). Patients over 60 (n = 56; 49.6% female; mean age 73.2 ( ± 7.6)) response rate was 26.8% (BDI infusion 1: 24.9 ( ± 11.0); infusion 6: 19.0 ( ± 11.6). There was a statistically significant reduction in BDI scores between baseline and the end of the acute course (p < 0.0001). No difference between the two age groups was observed (p = 0.1165). For ESK patients under 60 (n = 22; 68.1% female; mean age 44.0 ( ± 8.3)), response rate was 22.78% (BDI at infusion 1: M = 30.4, SD = 9.70; and at infusion 6: M = 21.2, SD = 10.9). In older patients (n = 13; 69.2% female; mean age 72.6 ± 7.4 years)) response rate was 30.8% (BDI at infusion 1: M = 24.9, SD = 11.0; at infusion 6: M = 19.0, SD = 11.6). BDI score decline between baseline and end of the acute course was statistically

significant ( $p < 0.0001$ ). No difference between the two age groups was observed ( $p = 0.5420$ ). No statistical difference was found in patients  $> 60$  between IVK and ESK ( $p = 0.31$ ) as well as in patients  $< 60$  between IVK and ESK ( $p = 0.4632$ ).

**Conclusions:** Antidepressant response and reduction of depressive symptoms was similar between IVK and ESK, with no difference between young and old populations.

## **P25: Association of exercise with melatonin level in community-dwelling older adults**

**Authors:** Pin-Shiuan Lee<sup>1</sup>, Yi-Ling Chen<sup>1</sup>, Wan-Ju Cheng<sup>1</sup>

<sup>1</sup> National Center for Geriatrics and Welfare Research, National Health Research Institutes, Miaoli, Taiwan

**Summary:** Melatonin serves as an endogenous synchronizer of biological rhythms. Age-related changes are evident with a significant reduction in melatonin observed in 24-hour secretion. Melatonin exerts a significant cytoprotective action by buffering free radicals and reversing inflammation. However, few studies have explored the association between physical activity and melatonin level. In this study, we compared melatonin level and actigraphy-derived sleep and activity indicators in older adults across two levels of exercise habit (sedentary-to-light exercise and moderate-to-vigorous exercise), as well as the association of these indicators with melatonin levels. We recruited 104 participants (aged 57–84 years) who wore a wristwatch device to monitor their activity (MotionWatch 8; CamNtech, Cambridge, UK) for 14 days. Circadian rhythms were estimated using cosinor analysis, lag 1440 mins correlation coefficient, interdaily stability, and non-parametric analysis. Saliva samples were collected every 30 mins from 18:00 pm till one hour before usual bedtime, and maximum melatonin level during this period. A 5-minute Psychomotor Vigilance Task (PVT) was used to evaluate attention. Habits of physical activities were self-reported. Melatonin level was not significantly different between participants with sedentary-to-light and moderate-to-vigorous exercise habits. Analysis showed that participants who had moderate-vigorous exercise habit were older ( $p = 0.04$ ), having longer sports time ( $p < 0.001$ ) and WASO ( $p = 0.02$ ), more occurrence of daytime naps (intradaily variability) ( $p = 0.05$ ), more fragmented 24-h sleep-wake cycle (interdaily stability,  $p = 0.01$ ), and less regular 24h rhythm (lag 1140 mins correlation,  $p = 0.04$ ). They also showed shorter response time ( $p = 0.05$ ), and a smaller number of lapses ( $p = 0.04$ ) in PVT. Regression analysis results showed that weekly exercise time is positively associated with melatonin level. Additionally, a later start hour of M10 is associated with 5.95 pg/ml increase in melatonin level. In conclusion, exercise in older adults did not promote a robust sleep-wake cycle but is related to better cognitive function and higher melatonin levels.

## **P26: Perceived sleep quality, the use of sleep medications and their association with cognitive performance in Brazilian older adults**

**Authors:** Rafael G. Campos, Luíza De M. N E Silva, Wendell Lima Rabelo, Cleusa Pinheiro Ferri, Matheus Ghossain Barbosa, PhD

**Objective:** The aim of this study was to evaluate the association between self-reported sleep quality, use of sleep medications and cognitive impairment among a representative sample of the Brazilian elderly population.

**Methods:** We conducted a secondary analysis using the baseline data of the Brazilian Longitudinal Study of Aging (ELSI-Brazil), a representative sample of non-institutionalized older adults, aged 50 years or over, living across the five Brazilian regions. We divided our sample into groups according to self-rated sleep quality and the use of sleep

medication, and descriptively reported sociodemographic and general health characteristics with their respective associations to each group. Subsequently, we analyzed the associations between these sleep measures and cognitive performance using linear regression.

**Results:** Data from 8,592 respondents were included, of which poor sleep perception was reported by 17.8% of participants, 16.2% were users of sleeping pills and 12.9% met criteria for cognitive impairment. Female sex, not having a partner, current smoking, having less education and more comorbidities were associated with poor sleep perception prevalence. Regarding the use of sleep aid, female sex, older age, not having a partner, having less education, more comorbidities and a problematic drinking behavior were associated to a current use. Any use of sleep medication ( $-0.06$  (95% CI;  $-0.10$  to  $-0.02$ )) and poor sleep perception ( $-0.06$  (95% CI,  $-0.09$  to  $-0.02$ )) were both associated with worse cognitive performance after adjustments in the multivariate analysis. Sensitivity analysis revealed that, when compared to individuals who reported “very good” sleep quality, the group who reported “poor” sleep quality was associated with worse cognitive scores ( $p = 0.015$ ) When compared to not using sleeping medication, the group that used medication 3 or more times a week was associated with worse cognitive measures ( $p < 0.001$ ).

**Conclusion:** We describe an association of sleep aid use and poor sleep perception with worse cognitive performance. We also report different frequencies of sleep quality perception and sleep aid use in accordance with a set of characteristics of this sample that can be considered potential risk factors for the development of sleep disorders and that can impact older adults’ quality of life.

**Key words:** Cognition, older adults, sleep quality, sleeping pills.

### **P27: Effects of cannabidiol on behavioral and psychological symptoms of vascular dementia: a randomized, double-blind, placebo-controlled trial**

**Authors:** Pessoa, R. M. P.; Martins Filho, R. K. V.; Rodrigues, G. R.; Pontes Neto, O. M.; Hallak, J. E. C.; Crippa, J. A. S.; Chagas, M. H. N.

**Objectives:** To evaluate the effect and safety of Cannabidiol (CBD) on behavioral and psychological symptoms in elderly with Vascular dementia (VD).

**Method:** Double- blind, randomized, placebo-controlled clinical trial involving elderly patients with VD at the psychogeriatrics and vascular dementia outpatient clinic at Hospital das Clínicas de Ribeirão Preto. The intervention evaluated was the use of CBD 300mg/day compared to placebo. The instruments used are: Neuropsychiatric Inventory, Brief Psychiatric Rating Scale (BPRS), Clinical Global Impression Scale, Side Effects Scale, Mini- Mental State Examination, Brief Cognitive Screening Battery, Katz Index of Independence in Activities of Daily Living, Lawton Instrumental Activities of Daily Living Scale, Informant Questionnaire on Cognitive Decline in the Elderly, Zarit Burden Inventory. The included participants were assessed at the beginning of the study (baseline assessment), in the first, second and fourth weeks after the start of the clinical trial.

**Results:** 30 participants were included. The mixed ANOVA with repeated measures showed that there is an effect of the interaction time and group ( $F(2.12; 59.43) = 4.02$ ;  $p < 0.05$ ;  $\eta^2 = 0.13$ ) on the total score of the brief scale psychiatric assessment and neuropsychiatric inventory ( $F(1.58; 44.31) = 3.61$ ;  $p = 0.05$ ;  $\eta^2 = 0.11$ ). The mixed ANOVA of repeated measures showed no effect of the interaction of time and group for the mini-mental state examination, brief cognitive screening battery. Adverse effects were mild and transient, and similar to the placebo group.

**Conclusion:** In this study, cannabidiol reduced psychological and behavioral symptoms in patients with vascular dementia. Future studies with larger samples are needed to confirm the findings. ( $F(1.58;44.31) = 3.61$ ;  $p = 0.05$ ;  $\eta^2 = 0.11$ ). The mixed ANOVA of repeated measures showed no effect of the interaction of time and group for the mini-mental state examination, brief cognitive screening battery. Adverse effects were mild and transient, and similar to the placebo group.

### **P28: Safety of Mirtazapine use in older people: A systematic review\**

**Authors:** Rebeca Mendes de Paula Pessoa, MD, MSc<sup>1,2</sup>, Guilherme José Barreto Alcantara, BSc<sup>1</sup>, Rafael Pires de Carvalho, BSc<sup>1</sup>, Marcos Hortes Nisihara Chagas, MD, PhD<sup>2</sup>, Madson Alan Maximiano-Barreto, PhD<sup>2</sup>.

1. University of São Paulo, Bauru, SP, Brazil.
2. Research Group on Mental Health, Cognition and Aging, University of São Paulo, Ribeirão Preto, SP, Brazil.

**Objectives:** This systematic review aims to analyze the safety of mirtazapine in patients aged 60 years or older, as well as its side effects in this population.

**Methods:** A systematic literature search was performed based on the Preferred Reporting Items for Systematic Reviews and Meta- Analyses (PRISMA) guidelines. Searches were conducted in the Embase, LILACS, PsycINFO, PubMed, Scopus, and Web of Science for articles published in any language using the terms Mirtazapine AND (pharmacovigilance OR 'side effect\*' OR 'adverse reaction\*' OR 'adverse event\*' OR safety). This review was registered in PROSPERO: CRD42023492249.

**Results:** Seventy-two papers met the inclusion criteria. A total of 12.983.837 patients aged 60 or over included the studies selected for this systematic review. Most of the reported indications (54.1%) were for depression. The most reported adverse events were drowsiness (5–30%), dry mouth (1–37.5%), constipation (3.9–23.2%), urinary infection (8.8–24%), fractures (0.3–18.6%) and risk of death (0.28–1.7%). From the included randomized controlled trials, comparing mirtazapine with placebo, mirtazapine resulted in higher rates of dry mouth. Compared with amitriptyline, mirtazapine had lower risk of dry mouth and drowsiness, and a higher risk of constipation. Compared with fluoxetine, mirtazapine had higher rates of drowsiness and dry mouth.

**Conclusions:** This work provides full characterization of mirtazapine safety in older people, which may help healthcare providers better anticipate, prevent and manage adverse events in this population.

### **P29: Suicide in Chilean elderly and deconfinement policies.**

**Authors:** Dr. Roberto Sunkel<sup>1,2</sup>, Giovanka Figueroa<sup>1</sup>, Noelia Zapata<sup>1</sup>, Dr. Valentina Sabaj<sup>1</sup>, Dr. María Rippes<sup>1</sup>, Anakena Ibaceta<sup>1</sup>, Dr. Fernando Barra<sup>1</sup>

1. Psychogeriatrics Service at National Institute of Geriatrics, Santiago de Chile
2. Department of Psychiatry, East Campus, University of Chile.

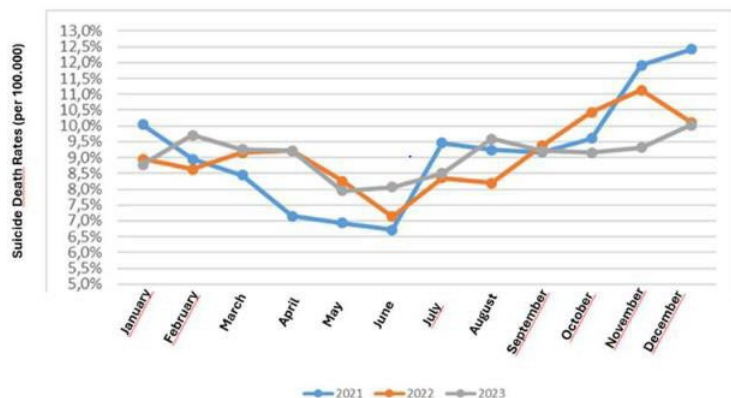
**Objectives:** Describe the relationship between suicide rates and deconfinement government policies in Chilean elderly.

**Methods:** Information on elderly deaths by suicide during de 2021–2023 period was taken from the Health Statistical Information Department of Chile (open access). Suicide rates were calculated, and monthly basis trends

built. Government quarantine- deconfinement measures were reviewed for describing the relationship between policies and suicide rates.

**Results:** In the three-year period analyzed, suicide rates increased from 9.1 per 100,000 inhabitants to 11.4% during 2022 and decreased during 2023 to 10 per 100,000 inhabitants. Monthly suicide rates by each year are shown in Figure 1.

FIGURE 1. Elderly monthly suicide rate between 2021 and 2023



Finally, government policies are listed in table 1.

March	Quarantine was decreed for 9 of 16 regions
April	National borders were closed. Outdoor activity were reduced. Curfew was set before 9:00 pm
July	- Mobility Pass allowed people to get out of their homes and social gathering (restaurants and events were included). - National borders were opened.
September	End of the Catastrophe State Decree. End of the curfew.

**Conclusion:** Between 2021–2023, the highest suicide rates occurred in 2022. When analyzing the trend on a monthly basis, it can be seen that there might be a relation with government quarantine-deconfinement measures. The most restrictive ones (March–June) seemed associated with the lowest rates. On the contrary, lower social restrictions (July and November) increased the deaths by suicide in the elderly.

### **P30: Exploring Attitudes towards Sexuality and Their Impact on Sexual Satisfaction among Older Adults in a Psychogeriatric Clinic in Mexico City**

**Authors:** Rodrigo Gómez Martínez, Dr. Juan Francisco Vázquez Flores, Dr. Guillermo Velázquez López, Dr. Ismael Aguilar Salas

**Summary:** Sexuality, often one of the least understood aspects of human behavior, encounters numerous prejudices, particularly in Latin American countries characterized by a repressive and machismo-infused education influenced by religious values, such as Catholicism. This cultural backdrop places women at a distinct disadvantage. According to the World Health Organization (WHO), sexuality encompasses various dimensions including sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy, and reproduction. Attitudes toward sexuality are shaped by past experiences, including affective, cognitive, and behavioral aspects. Societal norms for sexual activity, in the context of older adults have changed significantly. Research emphasizes the crucial role of sexual satisfaction in older adults' overall health. The interaction of sexuality, communication, and relationship conflicts directly affects partnership satisfaction and well-being. Lack of sexual satisfaction is linked to emotional distress and physical issues, highlighting the need for medical attention and overcoming reluctance to seek help. These findings emphasize the complexity of older adults' sexuality and the importance of a comprehensive approach considering social, cultural, and gender factors.

**Objectives:** To understand the attitudes of older adults receiving care at a Psychogeriatric clinic and to contrast them with the degree of sexual satisfaction they experience.

**Methods:** An observational, prospective, cross-sectional, descriptive, and non-comparative study was carried out to explore the attitudes of older adults with psychiatric comorbidities receiving care at a specialized clinic in Mexico City. Two questionnaires were employed to investigate biases and attitudes regarding the practice of sexuality, as well as satisfaction with their life and sexual expression: the Questionnaire of Attitudes towards Sexuality in Old Age and the Sexual Satisfaction Inventory, respectively.

**Results:** Participants were recruited from the Psychogeriatrics clinic of the National Institute of Psychiatry ( $n = 52$ ). The average age of participants was  $69.4 \pm 6.4$  years, with an average of  $10.4 \pm 5.1$  years of education. Two questionnaires were utilized to assess attitudes and sexual satisfaction (Questionnaire of Attitudes Towards Sexuality in Old Age and the Sexual Satisfaction Inventory, respectively).

A statistically significant difference was found in sexual satisfaction between men and women. Men exhibited higher levels of overall sexual satisfaction ( $X^{\bar{}} = 109.2$ , S.D. = 25.0) compared to women ( $X^{\bar{}} = 87.0$ , S.D. = 35.7), with  $W = 424$ ,  $p = 0.01$ . Women tended to harbor more negative attitudes ( $X^{\bar{}} = 15.5$ , S.D. = 6.8) towards sexuality than men ( $X^{\bar{}} = 19.5$ , S.D. = 6.6), with  $W = 399$  and  $p = 0.01$ .

The correlation between sexual satisfaction and attitudes towards sexuality in older adults was analyzed using the Spearman correlation coefficient. A result of  $-0.1$  was obtained, indicating a weak and negative correlation between the two variables evaluated ( $p = 0.5$ ).

A linear regression analysis was conducted using the sexual satisfaction score (dependent variable), attitudes score (independent), and sex as a dichotomous independent factor (male or female). The contribution of sex to the model was statistically significant ( $p = 0.01$ ), with an expected Sexual Satisfaction Inventory score 26.5 points lower in women compared to men. The proposed model accounted for approximately 14.0% of the variability.

**Conclusion:** Despite not finding a correlation between attitudes and sexual satisfaction, the gender disparities in satisfaction levels indicate that attitudes may exert differential influence on men and women. These findings underscore the significance of integrating the gender dimension when addressing sexual satisfaction in older adults. Moreover, there appears to be a restricted perspective on individual sexuality, emphasizing the imperative

to overcome cultural and religious stigmas that could impact the mental health and sexual well-being of this demographic.

### **P31: Anti-dementia drugs and Repetitive Transcranial Magnetic Stimulation in neurocognitive disorders**

**Authors:** Rose E. Nina-Estrella, William Marte Mena, Hanae Komatsu, Juana Paula Pérez

**Objective:** The objective of this study is to demonstrate the response of patients with neurocognitive disorders to a combination of antidementia drugs and repetitive transcranial magnetic stimulation (rTMS).

**Methods:** We conducted a descriptive and retrospective study with a sample of 13 geriatric patients, randomly selected from the private psychogeriatric clinic at the Nina Institute of Clinical Neurosciences in Santo Domingo. These patients were presented with various neurocognitive disorders: 3 with mild cognitive impairment, 3 with Alzheimer's dementia, 2 with vascular dementia, and 5 with mixed dementia. All patients signed an informed consent form. Prior to starting rTMS treatment, they underwent EEG, laboratory analysis, and neuropsychological testing using the Mini-Mental State Examination (MMSE). Additionally, they were medicated with rivastigmine (12 mg) and memantine (20 mg). The rTMS parameters for the 20-session protocol were as follows: for mild cognitive impairment, 110% motor threshold (MT), 10 Hz, and 2,000 pulses; for Alzheimer's diagnosis, 80% MT, 20 Hz, 1,200 pulses, 80% MT, 5 Hz, 600 pulses, and theta wave at 10 Hz, 110% MT, and 2,500 pulses. The results were tabulated, and conclusions were drawn.

**Results:** Our findings showed that all the patients improved their levels of cognitive impairment.

**Conclusions:** Patients improved their cognitive impairment level with the combination treatment of antidementia drugs: cholinesterase inhibitors and memantine, along with repetitive transcranial magnetic stimulation (rTMS). Repetitive transcranial magnetic stimulation (rTMS) is a developing treatment, and further clinical studies are needed to confirm its potential in treating Alzheimer's disease and other neurocognitive disorders alongside antidementia medications.

### **P32: Effects of Cognitive Stimulation Combined with Transcranial Direct Current Stimulation on Cognitive Performance and Cortical Excitability in Amnesic Mild Cognitive Impairment**

**Authors:** Ruth Alcalá-Lozano, MD, MSc, Rocio Carmona Hernandez, Ana Gabriela Ocampo Romero, Adriana Leticia Sosa Millán, Diana Zapata Abarca, Erik Daniel Morelos Santana, Yvonne Flores Medina, Ana Luisa Sosa-Ortiz, PhD, Jorge Julio González Olvera, Eduardo Adrian Garza Villarreal, Ricardo Arturo Saracco Álvarez

**Introduction:** Transcranial Direct current stimulation (tDCS) and repetitive transcranial magnetic stimulation (rTMS) are neuromodulatory techniques capable of modifying the altered cerebral hyperexcitability in amnesic mild cognitive impairment (aMCI). Cortical excitability can be estimated with motor evoked potentials (MEPs) and synaptic plasticity can be induced with a 5 Hz rTMS paradigm applied to the motor cortex (M1). An increase in MEP amplitude reflects a better capacity for plasticity in M1, and these measures can, in turn, be associated with cognitive performance. Cognitive stimulation (CS) and tDCS in aMCI can modify excitability and improve cognition.



**Objective:** Study the effect of the combination of CS and tDCS (real vs. placebo) on cognitive performance and cortical excitability.

**Methods:** Randomized, double-blind, placebo-controlled clinical trial in aMCI. The diagnosis was established through a clinical evaluation by a psychogeriatrician and a neuropsychological assessment. To determine the effect of the interventions, evaluations were conducted at two time points: before (T0) and after administering 9 sessions of CS and 15 sessions of tDCS over three weeks (T1). The evaluations included: MEP amplitude, Montreal Cognitive Assessment (MoCA), and Screening for Cognitive Impairment in Psychiatry (SCIP-S). For data analysis, ARTool in RStudio was used to perform aligned rank transformation for non-parametric analysis of variance in factorial models with fixed and random effects, applying a factorial ANOVA for each response variable.

**Results:** A total of 18 participants were enrolled (real  $n = 8$  and placebo  $n = 10$ ). Comparing T0 and T1, differences were found in both groups in MEP amplitude after applying the paradigm ( $F = 5.479$ ;  $p = 0.032$ ) as well as in the total MoCA score ( $F = 4.808$ ;  $p = 0.043$ ). When comparing the groups, differences were found in the delayed verbal learning domain assessed with SCIP-S ( $F = 6.038$ ;  $p = 0.025$ ) and in MEP amplitude ( $F = 6.165$ ;  $p = 0.024$ ). No differences were found in any of the evaluations when studying the effect of the Group $\times$ Time interaction.

**Conclusions:** Both groups benefit from cognitive stimulation, and the use of tDCS does not appear to enhance the cognitive effect or the MEPs. It seems that cognitive stimulation alone is capable of modifying cortical excitability and improving cognitive performance.

### **P33: Neuropsychological and brain profiles in elderly adult cancer survivors: A population-based cross-sectional study**

**Authors:** Ryo Shikimoto<sup>1,2</sup>, Shogyoku Bun<sup>1</sup>, Hidehito Niimura<sup>1,3</sup>, Hisashi Kida<sup>1,4</sup>, Hana Nishida<sup>1</sup>, Kouta Suzuki<sup>1</sup>, Yukiko Miyasaka<sup>1</sup>, Masaru Mimura<sup>5</sup>

1. Department of Neuropsychiatry, Keio University School of Medicine, Japan
2. Center for Supercentenarian Medical Research, Keio University School of Medicine, Shinjuku, Tokyo, Japan
3. Faculty of Clinical Psychology, Taisho University, Toshima, Tokyo, Japan
4. Department of Neuropsychiatry, Asaka Hospital, Koriyama, Fukushima, Japan
5. Center for Preventive Medicine, Keio University, Minato, Tokyo, Japan

**Objective:** Cancer's impact on physical and mental health varies by sex. This study explores physical and neurocognitive characteristics among elderly cancer survivors and investigates sex-specific differences in cortical thickness related to a history of cancer.

**Methods:** This study is part of the Arakawa geriatric cohort study for people aged 65 years or older, consisting of 1,098 individuals. Participants provided a self-reported history of cancer and underwent face-to-face diagnostic interviews, Mini-Mental State Examination (MMSE), Geriatric depression scale 15 (GDS-15), Pittsburgh Sleep Quality Index (PSQI), and three-dimensional T1-weighted magnetic resonance imaging. Cortical thickness was measured using FreeSurfer software. We explored the associations between cortical thickness, cancer history, and clinical-demographic data using univariate and multivariable regression analyses. Each analysis was conducted for the entire sample and then stratified by sex.

**Results:** Of 1,098 participants, 189 (17.2%) reported a history of cancer. These individuals were generally older, with a higher proportion being men. Among men, those with cancer history had lower BMI, a higher prevalence

of sleep disorders (PSQI  $\geq$  6), lower MMSE registration scores, and more MMSE comprehension impairments. Women with a cancer history showed no significant differences in sleep or cognitive functions. After adjusting for age, imaging acquisition site, education, estimated total intracranial volume, and dementia diagnosis, cortical thicknesses of cancer survivors was found to be reduced in the left posterior cingulate in men (B [95%CI] = 0.31 [0.12–0.78]) and in the left paracentral lobule in women (B [95%CI] = 0.22 [0.02–0.54]).

**Conclusion:** Cancer history in elderly adults is associated with sex-specific differences in physical, psychological, and brain structural characteristics. In men, links were observed with underweight, sleep disturbances, and specific cognitive dysfunctions alongside reduced cortical thickness in the left 2024 International Psychogeriatric Association International Congress, IPA posterior cingulate cortex. In women, no neuropsychological changes were noted, although reduction in left paracentral cortical thickness were identified. Future research should employ longitudinal methods to deepen understanding of cancer's long-term psychophysical effects, with an emphasis on sex-based differences.

### **P34: Poststroke psychosis following pontine lesions in geriatric patients: a case series**

**Authors:** Sarah C. Touponse<sup>1</sup>, Arielle Silbersweig<sup>1</sup>, Kendra Le<sup>2</sup>, Chevelle Brudey<sup>2</sup>, Adriana P. Hermida<sup>2</sup>

1. Emory University School of Medicine, Atlanta, GA, USA 30322
2. Department of Psychiatry and Behavioral Sciences, Emory University School of Medicine, Atlanta, Georgia, USA 30322

**Objective:** To analyze psychotic symptoms following pontine stroke to better understand the neuroanatomy underlying the symptoms.

**Methods:** A case series including three cases of poststroke psychosis following pontine lesions and a literature review will be presented.

**Results:** Case 1: 67-year-old female with hypertension, hyperlipidemia, hypothyroidism, chronic kidney disease, and stroke. She presented with daily tactile hallucinations on her left face and neck that felt like a snake wrapped around her, occasional visual and tactile hallucinations of a cat, and occasional sensations that her body was on fire. Initial MRI showed diffuse atrophy, small vessel ischemic changes, and chronic hemosiderin staining of the pons and left superior basal ganglia. Repeat MRI identified bilateral thalamic lacunar infarcts, an old left caudate/corona radiata intracranial hemorrhage, and prior left occipital intracranial hemorrhage. Symptoms were managed with quetiapine 12.5mg daily.

Case 2: 74-year-old female with anemia, hypothyroidism, orthostasis, depression, mild cognitive impairment, temporal lobe epilepsy, and two strokes. She presented with near-daily distressing tactile hallucinations of worms, rubber bands, insects, snakes, and toy car wheels in her mouth. MRI showed chronic ischemic changes and central pontine and periventricular white matter lesions bilaterally with mild/moderate atrophy. Multiple medication trials and ECT treatment were aborted due to confusion and paranoia. Symptoms were managed with risperidone 2mg daily.

Case 3: 80-year-old female with hypertension, hyperlipidemia, coronary artery disease, atrial fibrillation, gastrointestinal bleed, and depression. She presented with distressing delusions that she was infested with pinworms throughout her gastrointestinal tract, along with visual hallucinations of the worms. MRI showed nonspecific white matter changes and a small T2 hyperintensity in the left pons of either a lacunar infarct or

ischemic microangiopathic changes. After a partial hospitalization program enrollment and a subsequent hospitalization, symptoms were managed with risperidone 1.5mg daily.

**Conclusion:** Few case reports exist that describe peduncular hallucinosis, auditory hallucinations, or persistent tactile hallucinations following ischemic or hemorrhagic pontine lesions. The above cases demonstrate additional evidence of tactile and visual hallucinations following pontine stroke in geriatric patients, with imaging data localizing the lesions. Further research is needed to better understand the differing presentations, functional circuits, and neurochemical imbalances of psychosis following pontine lesion to improve diagnosis and treatments.

### **P35: Electroconvulsive therapy for treatment-resistant depression in a patient with hereditary paraganglioma/pheochromocytoma syndrome**

**Authors:** Sarah C. Touponse<sup>1</sup>, Arielle Silbersweig<sup>1</sup>, Rafael Celedón-García<sup>2</sup>, Natalie N. Bondulich<sup>2</sup>, Kendra J. Le<sup>3</sup>, Adriana P. Hermida<sup>3</sup>

1. Emory University School of Medicine, Atlanta, GA, USA 30322
2. Georgia Institute of Technology, Atlanta, GA 30332
3. Department of Psychiatry and Behavioral Sciences, Emory University School of Medicine, Atlanta, Georgia, USA 30322

**Introduction:** Cardiac complications during electroconvulsive therapy (ECT) occur more frequently in medically frail, geriatric patients and those with catecholamine-secreting tumors including pheochromocytoma (PCC) or paraganglioma (PGL). Patients with hereditary PGL/PCC syndromes develop these tumors at higher rates, however, little is known of the safety of ECT in individuals with hereditary PGL/PCC without an active tumor who may benefit from treatment.

**Methods:** A case report of a patient with hereditary PGL/PCC receiving ECT for treatment resistant depression (TRD) and a literature review are presented.

**Results:** 59-year-old female with hereditary PGL/PCC (TMEM 127 mutation, family history), hypothyroidism, essential tremor, migraine, and TRD, presenting for hospitalization to initiate ECT for her TRD >20 years that consisted of persistent hopelessness, anhedonia, and depressed mood with two hospitalizations for suicidal ideation. Upon admission, her medications were adjusted to bupropionXR 300mg and nortriptyline 25mg at bedtime. She complained of headaches and sweating but has no history of hypertension. No abnormalities were found on 24-hour urine metanephrine, ECG, or PET-CT. Her geriatric psychiatry team, in collaboration with anesthesiology and endocrinology, felt it safe to proceed with ECT. To date, the acute course has consisted of 6 ultrabrief right unilateral ECT treatments, all without hemodynamic complications (systolic blood pressure ~120-150, heart rate ~60-90). Mood, interest, motivation, and energy are improving, and passive suicidal ideation has resolved. Beck's Depression Inventory (BDI) score decreased from 33 to 29, Clinical Global Impression (CGI) Severity score decreased from 6 to 4, and CGI Improvement score was 3.

**Conclusion:** PCC was previously considered an absolute contraindication to ECT based on the limited literature on the subject. While a recent systematic review recommended conducting a risk-benefit analysis before ECT in patients with PCC, there are no known cases describing approaches to ECT in patients with hereditary PGL/PCC in the absence of an active tumor. This case exemplifies the safety and efficacy of ECT in an older patient with hereditary PGL/PCC, who received careful evaluation and monitoring. The benefits of ECT for TRD in older individuals with hereditary PGL/PCC may outweigh potential risks of treatment, and complications can be

mitigated through multidisciplinary pre-treatment medical evaluations and comprehensive periprocedural monitoring.

### **P36: Sleep Monitoring-Assisted Discontinuation of Sleeping Pills in an Older Patient with insomnia: A Case Report**

**Authors:** Sayaka Hayashi, Kazue Shigenobu, Miyae Yamakawa, Wenping Mo, Kazuhiro Umemura, Manabu Ikeda

**Objective:** This study evaluates the use of sleep monitoring to discontinue sleeping pills in a patient with insomnia and neurodegenerative conditions, presenting a non-pharmacological approach to managing sleep disorders.

**Methods:** This case report involves a 72-year-old woman with Progressive Supranuclear Palsy who was unable to sleep without sleeping pills. The patient lived alone, had some trouble speaking, and her MMSE score was 25/30. Medical records were reviewed from her initial visit to Hospital A until the cessation of sleeping pill use. Sleep was monitored using a non-wearable sheet-type device (Nemuri SCAN, Paramount Bed Co., Ltd.) placed under the mattress, providing long-term data. The study was conducted with approval from the Osaka University Hospital Ethics Review Committee.

**Results:** The patient had been unable to sleep since visiting her previous doctor and had tried various medications, including Suvorexant, Brotizolam, and Triazolam, none of which were effective. On her first visit to Hospital A, she was prescribed 8 mg of Ramelteon but still could not sleep. One week later, 15 mg of Brotizolam was added, allowing her to sleep with the combination of the two medications. A few months later, she experienced insomnia again due to daytime napping. Despite efforts to curb her naps, her condition persisted. Consequently, 0.25 mg of Clonazepam was added, and she was able to sleep with the three medications. After that, the patient began sleep monitoring using the Nemuri SCAN device and the monitoring indicated a consistent sleep rhythm with few awakenings, prompting her doctor to consider reducing her medication. A few months after starting sleep monitoring, the sleep monitoring results remained stable, with a constant sleep rhythm and few awakenings, leading to the discontinuation of 0.25 mg of Clonazepam and 15 mg of Brotizolam. Subsequent sleep monitoring continued to show stable results, allowing the discontinuation of 8 mg of Ramelteon six months after starting sleep monitoring.

**Conclusion:** This case highlights the importance of cautious sleep medication use in older and neurodegenerative patients, demonstrating benefits of alternative strategies like using non-wearable sleep monitoring device.

### **P37: Advancing-Age-Related Issues Queried through an Exploratory Survey**

**Authors:** Sheri Doyle, Psic, Lucia Beltrán Cruz, Psic

**Summary:** Advancing Age-Related Issues Queried through an Exploratory Survey consists of qualitative and quantitative gero-research focusing on volunteers aged seventy and over.

The queries focus on geriatric issues regarding internalized self-discrimination and societally imposed direct and indirect discrimination. The survey methodology applies 2-3 multiple-choice inquiries, while some responses can be expounded upon. As the study is exploratory one of its goals is to lead to more questions on the issue of discrimination.

The study originally aimed at quantitatively collecting and processing response results, harvested through surveys from older adults who reside in The United Kingdom (England), Mexico and in Ireland. With that intention in mind, one of the study's researchers (Doyle) took to the field but multifactorial logistics, sociocultural incongruencies and other challenges, would increase the time frame which she would need to run the survey as originally constructed as it held a qualitative, comparative component, which was planned for a co-project. She also discovered that a mosaic of distinct subsets of interviewees existed within each of the three survey regions and that would require reworking the original study.

The study-in-the-making was thus simplified to be effectuated with just one group of older adults – those survey participants who reside in Mexico. Reflecting on the challenges of running the original survey would become a valuable part of the learning overall process.

**Objective:** Through the application of an exploratory survey this mixed study seeks to identify patterns related to self-reported and internalized discrimination, and to direct and non-direct discrimination by third parties which impacts older adults. This survey serves as a brief pilot study with a more comprehensive study to thence follow.

**Process:** This study is being conducted through an anonymous and simple survey which consists of twelve inquiries—some which may be optionally expounded upon.

**Method:** Before starting the survey, each prospective participant provides basic demographic data. For ease of comparing response data quantitatively, a 2–3-point multiple-choice format has been established with “yes”, “no” and “non-applicable” or a like-kind concrete response, being the available options. Basic, non-identifying demographic data includes the respondents birth year, type of living arrangement, educational level attained, and mobility level.

Inclusive criteria includes that each prospective participant is seventy years old or older.

All tentative participants are required to voice their express consent to participate. After each survey has been completed (or stopped, by the participant) they will be given a small lapel sticker identifying their participation.

**Results:** An evaluation of the survey responses will be effectuated, while a scientifically based over-arching reflection of the challenges presented which thwarted the development of the original study will be recognized.

**Conclusions:** Infographic, bar charts (captioned in English & Spanish) comparing survey responses through the group of survey respondents based in Mexico, will become accessible in poster format, in September of 2024.

### **P38: Impact of developing cognitive decline on life satisfaction in Japanese older adults: the Arakawa Geriatric Cohort Study**

**Authors:** Shogyoku Bun<sup>1</sup>, Ryo Shikimoto<sup>1</sup>, Hisashi Kida<sup>1</sup>, Hana Nishida<sup>1</sup>, Hidehito Niimura<sup>1</sup>, Masaru Mimura<sup>1,2</sup>

1. Department of Neuropsychiatry, Keio University School of Medicine, Tokyo, Japan

2. Center for Preventive Medicine, Keio University, Minato, Tokyo, Japan

**Objective:** The relationship between cognitive decline and life satisfaction in older adults remains unclear. This study aimed to examine whether older adults with normal cognition at baseline, who developed cognitive decline

(i.e., mild cognitive impairment or dementia) over a five-year period, experience lower life satisfaction compared to those who remained cognitively intact.

**Methods:** The present longitudinal study was conducted in the Arakawa Ward, Tokyo, Japan. Among the initial 1,099 community-dwelling older adults who were between 65 to 84 years old in 2016, we analyzed data from 628 participants who were cognitively intact at baseline and remained in the study at follow-up (2022–2023) with complete data. The effect of developing cognitive decline on life satisfaction, measured by the Satisfaction with Life Scale (SWLS), was examined using a linear mixed model. In addition to developing cognitive decline, fixed effects included time, sex, age, education, depression (indicated by the Geriatric Depression Scale scores above 5), living status (living alone), and frequency of social interactions. The intercept and participants were treated as random effects.

**Results:** At follow-up, 87 participants were diagnosed with mild cognitive impairment and 7 with dementia. Overall, the mean SWLS score experienced a slight but statistically significant decrease over the five-year period ( $18.14 \pm 5.27$  at baseline and  $17.75 \pm 5.27$  at follow-up,  $p = 0.02$  as determined by a paired t-test). The linear mixed model analysis revealed that developing cognitive decline was not significantly associated with life satisfaction ( $p = 0.93$ ). Notably, living alone and being in a depressive state were significantly associated with higher SWLS scores ( $p = 0.003$  and  $p < 0.001$ , respectively).

**Conclusion:** Life satisfaction did not significantly decline in older adults who developed cognitive decline compared to those who remained cognitively intact. The unexpected findings that individuals living alone and those experiencing depressive states reported higher life satisfaction may indicate potential adaptive mechanisms, whereby these individuals might have developed strategies to find joy in everyday life. Further research is warranted to replicate these results and to explore the underlying factors or potential resilience mechanisms contributing to these findings.

### **P39: Building Resilience in Geriatric Health Today (BRIGHT)**

**Authors:** Siew Fai Liew, Iris Rawtaer

**Objective:** With a rapidly aging population in Singapore, late-life depression and anxiety become increasingly relevant as they impact on quality of life, disability and healthcare costs. BRIGHT initiative begins as a group coaching programme with the aim to empower at risk elderly to self-manage physical and mental health ailments. This poster aims to present the latest findings and updates from BRIGHT as we embark on to the next phase, BRIGHT Train the Trainers (BRIGHT T3) programme to ensure long term sustainability of these interventions.

**Methods:** BRIGHT consists of three two-hour workshops facilitated by a multidisciplinary team (MDT) comprising psychiatrists, psychologists, and medical social workers. Two virtual runs were conducted over zoom while five physical runs were conducted on site at the local senior activity centres. Scales of GDS, GAI, HCS and SF 12 were administered pre and post intervention to capture 1) reduction in depressive and anxiety symptoms, 2) quality of life, 3) improvement in health confidence, and 4) participant satisfaction.

This intervention is supplemented by a mobile wellness application nested within Singhealth Healthbuddy application, providing seniors access to an application with self-monitoring, inbuilt reward systems to reinforce positive behaviours and self-help mental health resources.

BRIGHT T3 programme aims to promote mental wellness and create sustainable impact by establishing a self-sustaining model through peers, volunteers and grassroots leaders who will continue to deliver the programme in their respective communities. Eligible trainers identified will be pre-screened by the BRIGHT team and a baseline assessment of mental health literacy will be administered. The comprehensive training regimen comprises of training modules in didactic and experiential format which will be led by the BRIGHT MDT. As trainees gain competence, they will progress to leading sessions under close supervision.

**Results:** Average participant satisfaction was 85% with positive verbal reviews from community partners as well. GDS, GAI, HCS, and SF 12 PCS scores improved by an average of 1.8, 1.7, 1.6 and 1.8 respectively. On the other hand, SF-12 MCS scores decreased by an average of 1.8.

**Conclusion:** By focusing on a train-the-trainer model, the programme ensures long-term sustainability of these interventions.

#### **P40: Associations between occupation, retirement age and 20-year cognitive decline: The Atherosclerosis Risk in Communities (ARIC) Study**

**Authors:** Albert C. Liu, Mehul D. Patel, Alden L. Gross, Thomas H. Mosley, Andrea L.C. Schneider, Anna M. Kucharska-Newton, A. Richey Sharrett, Rebecca F. Gottesman, Silvia Kontou

**Objective:** Activities that require active thinking, like occupations, may influence cognitive function and its change over time. Associations between retirement and dementia risk have been reported, however the role of retirement age in these associations is unclear. We assessed associations of occupation and retirement age with cognitive decline in the US community-based Atherosclerosis Risk in Communities (ARIC) cohort.

**Methods:** We included 14,090 ARIC participants, followed for changes in cognition during up to 21 years. Information on current or most recent occupation was collected at ARIC baseline (1987–1989; participants aged 45–64 years) and categorized according to the 1980 US Census protocols and the Nam-Powers-Boyd occupational status score. Follow-up data on retirement was collected during 1999–2007 and classified as retired versus not retired at age 70. Trajectories of global cognitive factor scores from ARIC visit 2 (1990–1992) to visit 5 (2011–2013) were presented, and associations with occupation and age at retirement were studied using generalized estimating equation models, stratified by race and sex, and adjusted for demographics and comorbidities.

**Results:** Mean age (SD) at first cognitive assessment was 57.0 (5.72) years. Higher occupational status and white-collar occupations were significantly associated with higher cognitive function at baseline. Occupation was associated with cognitive decline over 21 years only in women, and the direction of the effect on cognitive function differed between black and white women: in white women, the decline in cognitive function was greater in homemakers and low status occupations, whereas in black women, less decline was found in homemakers and low (compared to high) occupational status. Interestingly, retirement on or before age 70 was associated with less 21-year cognitive decline in all race-sex strata, except for black women.

**Conclusion:** Associations between occupation, retirement age and cognitive function substantially differed by race and sex. Further research should explore reasons for the observed associations and race-sex differences.

## **P41: The Effect of Home-Visit Nursing in Preventing Readmission of Patients with Mental Disorders to Psychiatric Hospitals: A Literature Review**

**Authors:** Taiki Teshima, Yuta Koto, Miyae Yamakawa, BSN, Ph.D.

**Background:** The transition from hospital to community for psychiatric patients is often challenging due to difficulties in managing community life after discharge and receiving consistent mental health treatment (Marianne, 2019). Some systematic reviews reported on interventions to improve discharge from acute adult mental health inpatient care to the community (Tyler, 2019) and the effectiveness of crisis resolution/home treatment teams for older people with mental health problems (Toot, 2011). However, these reviews revealed inadequate evidence for nursing interventions in community. In Japan, home-visit nursing is considered to play an important role for people with mental disorders living in community.

This review aims to provide an overview of the effectiveness of home-visit nursing in supporting community life for individuals with mental disorders discharged from psychiatric hospitals.

**Method:** We conducted a search in electronic databases including Medline (OVID) and CINAHL (EBSCOhost). The search was conducted using the following keywords: “mental disorders”, “hospitalization”, “patient readmission”, “home visit nursing”, “home nursing”, “home health care”, “home care services”, and “house calls”. The review included original articles and research reports. Conference reports and articles about other professions, and interventions conducted in hospitals or facilities were excluded.

**Results:** A total of 205 articles were extracted, with 109 from Medline and 96 from CINAHL. We retrieved 13 studies, including three randomized controlled trials, two interventional studies, and eight retrospective studies. Most participants were post-discharge individuals with mental disabilities, but some studies included individuals prior to hospital admission. Most studies reported that home-visit interventions reduced psychiatric rehospitalization, the duration of hospitalization, and medical costs. One study reported that community-based treatment for older persons with severe mental illness decreased depressive symptoms and psychiatric hospitalization at 6 months. Additionally, telephone follow-ups were reported to be more effective than regular interventions in some studies. However, the intervention and effectiveness measurement methods varied among the studies.

**Conclusion:** Home-visit interventions appear to be effective in preventing hospitalization for individuals with mental disorders. However, it is difficult to make simple comparisons as the content of home-visit interventions varies according to the background system and the region. Further research and systematic reviews are necessary.

**Keywords:** Coping, caregivers, Alzheimer’s

## **P42: Memantine effects on resting-state EEG sources in Alzheimer’s disease**

**Authors:** Takahiro Mori<sup>1,4</sup>, Norifumi Tsuno<sup>2</sup>, Ichiro Ishikawa<sup>3,4</sup>, Yu Nakamura<sup>3</sup>

1. Department of Liaison Psychiatry, Kagawa University School of Medicine, Miki-cho, Japan
2. Department of Clinical Psychology, Kagawa University School of Medicine, Miki-cho, Japan
3. Department of Neuropsychiatry, Kagawa University School of Medicine, Miki-cho, Japan
4. Department of psychiatry, Mitoyo City Nishikagawa Hospital, Mitoyo, Japan



**Objective:** Several studies have shown that acetylcholinesterase inhibitors (AChEIs) decrease delta or theta activity, increase alpha activity on Electroencephalography (EEG) in Alzheimer's disease (AD) patients. The effects of memantine on EEG in AD patients are not as well understood as those of AChEIs. The present study investigated the electrocortical effects of 3 months memantine medication in AD patients.

**Methods:** EEG was recorded in 28 patients with AD (mean age  $83.3 \pm 4.6$  years, 19 females) before and 3 months after the onset of memantine medication. Source localization was applied to the EEG using exact low-resolution brain electromagnetic tomography (eLORETA) in 8 frequency bands (delta, theta, alpha-1, alpha-2, beta-1, beta-2, beta-3, gamma). Differences in source strengths from before to after memantine treatment were compared per frequency band using t-statistics (corrected for multiple testing over frequency bands and voxels).

**Results:** Theta activity significantly decreased in bilateral anterior cingulate gyrus, bilateral posterior cingulate gyrus, right parahippocampal gyrus, right insula, right fusiform gyrus, bilateral precuneus, right uncus and right temporal gyrus. Alpha-1 and alpha-2 activity decreased in the anterior cingulate gyrus. Beta-1 activity significantly decreased in the anterior and posterior cingulate gyrus. There were no areas of increased EEG activity in any frequency bands.

**Conclusion:** We found that memantine reduced theta activity similarly to AChEIs. This finding may be related to the cognitive improvements of memantine. Whereas the decrease of beta-1, alpha-1 and alpha-2 activity in the anterior cingulate gyrus was different from AChEIs. Further studies are required to elucidate these differences.

#### **P43: Effectiveness of Brief Interventions for Reducing Alcohol Consumption in Older Adults: A Systematic Review and Meta-Analysis**

**Authors:** Lucas M. Teixeira, Clara D. De Araújo, Matheus Ghossain Barbosa, PhD, Cleusa P. Ferri, Tassiane Paula, PhD

**Introduction:** Brief interventions (BIs) are strategies involving screening for at-risk drinkers, followed by a short intervention providing information about alcohol and personalized feedback. BIs are cost-effective for the general population, but less is known about their potential effectiveness in the older adult population.

**Objectives:** To conduct a systematic review (SR) on the effects of BI in people aged 50 and above on alcohol consumption (primary outcome), cognitive performance, and depressive symptoms (secondary outcomes).

**Methods:** Searches were conducted in the MEDLINE, EMBASE, and LILACS databases to identify randomized controlled trials (RCTs) in English, Spanish, and Portuguese, published up to June 2023. A risk of bias assessment (Rob 2.0) was performed, and a direct meta-analysis (RevMan version 5.4.1) was conducted for all available primary outcomes. The SR protocol was registered in PROSPERO (CRD42023436908).

**Results:** Eight studies were initially identified, and five of them which met the inclusion criteria were included in the meta-analysis. All studies were conducted in high-income countries and varied in relation to the outcome measures. There was a statistically significant reduction (SMD = 0.21; 95% CI: 0.07 – 0.34) in alcohol consumption among older adults at 3 months follow-up. However, at 6 and 12 months, there was no statistically significant

difference between the control and intervention groups. None of the eligible studies presented results on the secondary outcomes, cognition, or mood.

**Conclusion:** BIs show promise as an intervention for addressing and reducing at-risk drinking in older adults. However, there is limited research in this area, and the lack of standardized methodological criteria makes it difficult to compare the results of studies. Therefore, further studies are required, using standardized methodologies, to better understand the long-term effects, in respect of both primary and secondary outcomes, of these interventions.

#### **P44: Late-life drinking in primary care users in Brazil: a cross-sectional study**

Authors: Tassiane C. S. de Paula<sup>1,2</sup>; Carolina Godoy<sup>1</sup>; Amanda E. G. Henrique<sup>1</sup>; Lucas Martins Teixeira<sup>1</sup>; Cleusa Ferri<sup>1,2</sup>.

1. Department of Psychiatry, Universidade Federal de São Paulo - UNIFESP, São Paulo, Brazil.
2. Health Technology Assessment Unit, International Research Institute, Hospital Alemão Oswaldo Cruz, São Paulo, Brazil.

**Background:** With the aging of the population, alcohol consumption among older adults presents a growing public health concern. Recognizing the prevalence and determinants of at-risk drinking among older adults is crucial for the development of effective interventions and improved healthcare outcomes.

**Objective:** To estimate the prevalence of at-risk drinking and associated factors among older adults in primary care in Brazil.

**Method:** A cross-sectional study with 1,639 participants aged 60 and above from fourteen primary care units in the city of the state of Sao Paulo, Brazil, between December 2023 and April 2024. At-risk drinkers were defined by the Alcohol Use Disorders Identification Test - Consumption (AUDIT-C scores  $\geq 4$ ), and/or binge drinking ( $\geq 3$  drinks on a single occasion). Logistic regression was used to assess the association between sociodemographic characteristics, smoking, depression (PHQ-2 scores  $\geq 3$ ), and chronic diseases. A gender interaction test was conducted for all positive associations.

**Results:** The mean age of the 1,639 participants was 68.6 (SD  $\pm 6,2$ ; range: 60–95), with 52.6% reporting current alcohol consumption, 21.3% were at-risk drinkers (AUDIT-C plus binge), and 26.8% regular smokers. Men (OR: 2,94; 95% CI: 2.21–3.90), those with high education (OR: 1.53; 95% CI: 1.10–2,14), were employed (OR: 1.50; 95% CI: 1.02-2.19), and current smokers (OR: 2.36; 95% CI: 1.73–3.23) were more likely to be at-risk drinkers. While older participants (70+) (OR: 0.96; 95% CI: 0.93–0,98), and those with depression (PHQ-2) (OR: 0.96; 95% CI: 0.93–0.98) were less likely to be at-risk drinkers. Having a higher level of education was associated with a greater likelihood of at-risk drinking for men but not for women. Conversely, the presence of chronic diseases was associated with a reduced probability to be an at-risk drinker for women, but not for men.

**Conclusion:** This study revealed a significant prevalence of alcohol consumption, at-risk drinking, and binge drinking among older adults in primary care. Gender differences were observed in drinking behavior. These findings could aid health professionals in identifying at-risk drinkers and inform the development of targeted interventions for the most vulnerable groups.

#### **P45: The pattern of social cognition impairment in young-onset and late-onset Alzheimer's disease**

**Authors:** Tatiana Belfort , Marcela Nogueira , Isabel Lacerda , Maria Alice Baptista , Michelle Brandt , Julia Gaigher<sup>1</sup>, Natalie de Souza<sup>1</sup>, Rogéria Rangel<sup>1</sup>, Marcia Cristina Nascimento Dourado<sup>1</sup>

<sup>1</sup>Center for Alzheimer's disease, Institute of Psychiatry, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil

**Introduction:** People with young-onset Alzheimer's disease (YOAD) are diagnosed when the neurocognitive process begins before the age of 65 and often present with more global impairments and a more rapid course of the disease. In contrast, in late-onset Alzheimer's disease (LOAD), the loss of short-term memory is most pronounced. Therefore, the age of onset may affect global functioning in different ways.

**Objective:** This study examines the relationship between Social Cognition, global cognition, and other clinical variables in young and late-onset people with Alzheimer's disease and their caregivers.

**Methods:** Using a cross-sectional design, we included 48 people with YOAD and 118 with LOAD and their carers. We assessed social cognition, global cognition, quality of life, dementia severity, mood, functionality, neuropsychiatric symptoms, and caregiver burden.

**Results:** Our results showed that the YOAD group had more global cognitive impairment, lower MMSE scores ( $P = 0.018$ ,  $d = 0.41$ ), higher Adas cog ( $P = 0.002$ ,  $d = 0.06$ ), poorer quality of life (QoL- AD) ( $P = 0.036$ ,  $d = 0.36$ ), and more neuropsychiatric symptoms (NPI) ( $P = 0.044$ ,  $d = 0.35$ ). However, social cognition showed a stable pattern of impairments in YOAD that did not follow the global deficits. The multifactorial regression analyses further showed that in both groups functionality was significantly related to Social Cognition, YOAD ( $P = 0.035$ ), and LOAD ( $P = 0.001$ ).

**Conclusions:** The significant findings of our study underscore that in YOAD, despite more pronounced global impairment compared to LOAD, social cognition remains stable. This finding is crucial for understanding the patterns of social cognition in YOAD and may potentially guide future interventions and care strategies.

**Keywords:** Social Cognition, Alzheimer's disease, Yong onset AD, Late-onset AD, Functionality

#### **P46: Buddhist temples are promising social resources in secular community-based integrated care (1): Interviews with Buddhist priests who work as health care professionals.**

**Authors:** Tsuyoshi Okamura, Chiaki Ura, Ayako Edahiro, DDS., PhD., Akinori Takase, Yukan Ogawa, Susumu Shimazono

**Objective:** Experience of people with dementia falls between attempts to maintain a sense of self and normality and struggle with acceptance in order to integrate the changes within the self (Clare). The need for interventions, including spiritual care, targeting fear and loss of self is reported (Palmer). In Japan, Buddhist temples which hold peer-support café for the caregivers of the people with dementia are emerging, as those needs are not fully covered by the health care system (Okamura). For the better future psychogeriatrics-Buddhist temple collaboration, this study explores the views of the Buddhist priests who work in the secular health care system.

**Methods:** Consecutive in-depth interviews were conducted with health care professionals such as medical doctors, psychologists, care workers, etc. who work in the secular health care system, and who are at the same

time qualified as Buddhist priests. Verbatim transcripts were analyzed using a qualitative descriptive approach. Ethical considerations: The study was approved by the Taisho University ethics committee.

**Results:** Twenty-four subjects were interviewed. Some medical doctors expressed struggles as Buddhist priests concerning not being able to provide person-centered care in the medical setting, especially in intensive care units in early career training, due to the busyness. However, now that they are specialists, they are able to provide person-centered care. According to care workers, the effects of Buddhist priests in the residential care were; protecting burnout of the care staff; decreasing anxiety of the residents; increasing trust from the family; and making the inclusive care environment. All of them talked that the lack of practical knowledge teaching on aging, dementia, and death in the monk training program is a problem, but that there may be considerable resistance to changing a curriculum with a long history.

**Conclusion:** Discourses of the professionals of both territories, i.e., scientific care and spiritual care, are worth investigating for the future reform of the education of both territories.

**Keywords:** Integrated care, Interdisciplinarity, Psychiatry, Buddhism

#### **P47: Multimorbidity Patterns and their association with depressive symptoms among elderly: A Latent Class Analysis of the Brazilian Longitudinal Study of Aging (ELSI-Brazil) data**

**Authors:** Vinícius Boaventura<sup>1</sup>, Cleusa P Ferri<sup>1,2</sup>, Lucas M Teixeira<sup>1</sup>, Ana M A Keinert<sup>1</sup>, Matheus Ghossain Barbosa<sup>1</sup>

1. Psychogeriatric Unit, Department of Psychiatry, Escola Paulista de Medicina, Universidade Federal de São Paulo, São Paulo, Brazil
2. Health Technology Assessment Unit, Hospital Alemão Oswaldo Cruz, São Paulo, Brazil.

**Objective:** To explore how clusters of chronic health problems can impact depression in older adults.

**Methods:** We performed a latent class analysis using the baseline data from The Brazilian Longitudinal Study of Aging (ELSI-Brazil). Depression was assessed using the Center for Epidemiological Studies Depression Scale (CES-D8). Scores of 4 or higher on the CES-D8 were considered positive for depression. Fourteen self-reported conditions (Diabetes, Systemic Arterial Hypertension, Angina, Myocardial Infarction, Chronic Kidney Disease, Heart Failure, Stroke, Low Back Pain, Arthritis, Osteoporosis, Asthma, Chronic Obstructive Pulmonary Disease, High Cholesterol, and Cancer) were evaluated and combined as a total number of chronic conditions.

**Results:** The total number of individuals in the sample was 4672. The best resulting model is composed of 4 latent classes. The latent classes were organized as follows: Cardiovascular Multimorbidity (Class1); No multimorbidity (Class 2); Musculoskeletal Multimorbidity (Class 3); and Inflammatory Multimorbidity (Class 4). We identified that, in comparison with class 2, (considered the reference class due to the absence of multimorbidity), the odds ratio for depression was 2.56 for the Cardiovascular Multimorbidity class, 2.86 for the Musculoskeletal Multimorbidity class, and 4.59 for the Inflammatory Multimorbidity class.

**Conclusion:** We found that various patterns of multimorbidity are associated with depression when compared with a single disease and that Inflammatory Multimorbidity has the greatest impact on depression.

### **P48: Effect of sleep report feedback using information and communication technology combined with health guidance on subjective and objective sleep discrepancy among older people with and without uncoupled sleep**

Author(s): Wenping Mo <sup>1</sup>, Miyae Yamakawa <sup>1,2</sup>, Kodai Nobuhara <sup>3</sup>, Masako Higo <sup>1</sup>, Hiroyoshi Adachi <sup>4,5</sup>, Hitomi Chikama<sup>1</sup>, Eriko Koujiya <sup>1</sup>, Yasushi Takeya <sup>1</sup>, Manabu Ikeda<sup>5</sup>

1. Division of Health Sciences, Graduate School of Medicine, Osaka University
2. The Japan Centre for Evidence Based Practice: A JBI Centre of Excellence, Osaka, Japan
3. NTT-PARAVITA Inc., Japan
4. Health and Counseling Center, Osaka University, Osaka, Japan
5. Department of Psychiatry, Graduate School of Medicine, Osaka University

**Objective:** Uncoupled sleep is a phenomenon characterized by a discrepancy between sleep patterns and sleep complaints. This study aimed to evaluate the effect of sleep report feedback utilizing information and communication technology combined with health guidance on improving subjective and objective sleep outcomes in community-dwelling older people with and without uncoupled sleep.

**Methods:** This study was conducted in Sakai City, Japan. The Athens Insomnia Scale (AIS) was employed to evaluate subjective sleep outcomes. Participants were categorized as complaining sleepers if they reported their overall sleep quality as markedly or very unsatisfactory, in addition to having a total AIS score  $\geq 10$ . Non-wearable actigraphy devices were placed under participants' bedding to continuously measure their objective sleep outcomes. Sleep latency (SL), wake after sleep onset (WASO), and sleep efficiency (SE) parameters were recorded. Participants were classified as poor sleepers if their actigraphy-measured SL was  $\geq 31$  min or SE was  $< 85\%$ , or WASO was  $\geq 31$  min. All measurements were taken prior to and following a 3-month intervention program. Statistical analysis was conducted using SPSS Version 26. This study received approval from the Institutional Review Board of Osaka University.

**Results:** A total of 105 participants completed the study, with 65 females (62%). Among them, 8 were complaining good sleepers, 12 were complaining poor sleepers, 42 were non-complaining good sleepers, and 43 were non-complaining poor sleepers. Improvements in subjective sleep quality were observed across all sleeper classifications ( $P < 0.05$ ). Specifically, subjective SL ( $P = 0.009$ ) and WASO ( $P = 0.023$ ) improved in complaining poor sleepers without uncoupled sleep. Objective and self-reported changes in sleep parameters were demonstrated in non-complaining poor sleepers with uncoupled sleep, specifically manifested as improvements in objective WASO ( $P < 0.001$ ), SE ( $P < 0.001$ ), and subjective sleep quality ( $P = 0.038$ ). However, there were no significant changes in objective sleep outcomes among complaining good sleepers, non-complaining good sleepers, and complaining poor sleepers ( $P > 0.05$ ).

**Conclusion:** The implementation of sleep report feedback and health guidance intervention for community-dwelling older people has demonstrated improvement in subjective sleep quality across all sleeper classifications. Furthermore, it shows promising effects on non-complaining poor sleepers with uncoupled sleep, as evidenced by both objective and subjective sleep measures.

**Keywords:** Sleep disturbance, Sleep monitoring, Health guidance, Older people

### **P49: Expressed emotion mediate the association between relationship closeness and psychological symptoms dementia people**

**Author(s):** Xiaoji Liu<sup>1</sup>, Ayako Hibi<sup>1</sup>, Reiko Kanaya<sup>1</sup>, Keiko Takiue<sup>2</sup>, Yang Liu<sup>1</sup>, Kazue Shigenobu<sup>3,4</sup>, Yasushi Takeya<sup>1</sup>, Miyae Yamakawa<sup>1,5</sup>

1. Division of Health Sciences, Graduate School of Medicine, Osaka University
2. Department of Nursing, Graduate School of Medicine, Gifu University, Gifu, Japan
3. Department of Behavioral Neurology and Neuropsychiatry, Osaka University United Graduate School of Child Development, Osaka, Japan
4. Asakayama General Hospital, Osaka, Japan
5. The Japan Centre for Evidence Based Practice: A JBI Centre of Excellence, Osaka, Japan

**Objective:** Higher intimacy is associated with less behavioral and psychological symptoms of dementia (BPSD) in people with dementia, however, the processes underlying this association remain unclear. This study investigates the role of expressed emotion (EE) and relationship closeness between caregivers and patients with dementia in the manifestation of BPSD.

**Method:** We recruited 56 families with dementia and collected 3-month longitudinal data including demographic details of current family caregivers providing care, caregiving relationship closeness (RCS), and BPSD measured using the Neuropsychiatric Questionnaire (NPI-Q). We assessed EE using the validated Family Attitudes Scale (FAS), where higher scores indicate greater intensity of expressed emotion. Correlational and mediation analyses were conducted using baseline and three-month follow-up data to explore the relationships between RCS, EE, and BPSD. Mediation analysis was performed using the SPSS PROCESS Version 4.1 macro. The study received approval from the Institutional Review Board of Osaka University.

**Results:** Correlation analysis showed that there was significance between RCS and BPSD at baseline and third month ( $r = -0.301$ ,  $p < 0.05$ ), and between EE and BPSD ( $r = 0.378$ ,  $p < 0.001$ ). Furthermore, mediation analysis demonstrated that caregivers' EE significantly mediated the association between RCS and BPSD in dementia patients. The indirect effect of RCS on BPSD through caregivers' EE was found to be significant, with a 95% confidence interval (CI) of  $(-0.6097, -0.1790)$ , where the CI excludes zero. This indicates that the mediation effect of caregivers' EE on the relationship between RCS and BPSD is statistically significant.

**Conclusions:** It suggests that interventions aimed at improving caregiver-patient relationships and managing caregivers' EE could be crucial in mitigating BPSD, providing a direction for future research and intervention development to support both patients and their families in the dementia care.

**Keywords:** dementia, mediation, expressed emotion, family care

### **P50: Fraud Victimization and Scam Vulnerability in the Arakawa Cohort Study Conducted in an Urban Area of Japan**

**Authors:** Yoko Eguchi<sup>1</sup>, Shogyoku Bun<sup>1</sup>, Hidehito Niimura<sup>1,2</sup>, Ryo Shikimoto<sup>1,3</sup>, Hisashi Kida<sup>1,4</sup>, Hana Nishida, Kouta Suzuki<sup>1</sup>, Midori Takayama<sup>5</sup>, Masaru Mimura<sup>6</sup>

1. Department of Neuropsychiatry, Keio University School of Medicine, Japan,
2. Faculty of Clinical Psychology, Taisho University, Toshima, Tokyo, Japan

3. Center for Supercentenarian Medical Research, Keio University School of Medicine, Shinjuku, Tokyo, Japan
4. Department of Neuropsychiatry, Asaka Hospital, Koriyama, Fukushima, Japan
5. Faculty of Science and Technology, Keio University, Japan
6. Center for Preventive Medicine, Keio University, Minato, Tokyo, Japan

**Objective:** In 2023, the damage caused by “special fraud” will amount to approximately US\$285 million in Japan, with a marked increase in the number of victims among the older population aged 65 and over, who account for about 86.6% of the total. “Special fraud” is a crime in which suspects phone victims and pretend to be police officers, victims’ family members, etc. to have victims transfer cash to the suspects’ bank account. In other cases, a suspect visits a victim’s house after such a phone call and directly receives the victim’s cash and/or cash cards. The purpose of this study is to clarify the factors that contribute to fraud victimization among the elderly and to strengthen measures to prevent victimization.

**Methods:** The subjects of the analysis were 840 residents of Arakawa Ward, Tokyo, aged 65 years or older, who participated in the Arakawa 65 Years and Older Survey or the Arakawa 85 Years and Older Survey. Data on participants’ fraud experiences, level of caregiving, living environment, and various psychological measures, including the Fraud Vulnerability Score (SVS), the Satisfaction with Life Scale (SWLS), the Resilience Scale (RS), the Mini-Mental State Examination (MMSE), and the Geriatric Depression Scale (GDS) were collected. Multiple logistic regression was used to explore the relationship between these factors and fraud victimization, adjusting for age, gender, level of caregiving, and living situation.

**Results:** Fraud victims (n = 37) and non-victims (n = 803) differed significantly in terms of SVS and SWLS. Fraud victims had higher fraud vulnerability scores and higher life satisfaction. Logistic regression analysis confirmed that higher SVS and SWLS were significantly associated with a higher likelihood of experiencing fraud (SVS OR = 0.799, CI: 0.720 – 0.887, p < 0.001; SWLS OR = 0.928, CI: 0.870 – 0.989, p = 0. (022).

**Conclusion:** Given that fraud victimization is correlated with fraud vulnerability and high life satisfaction, it is critical for older adults and their caregivers to implement strategies aimed at reducing fraud risk. This study highlights the need for targeted interventions that address the unique vulnerabilities of the urban elderly population.

### **P51: Network Structure of Depressive Symptomatology in Elderly with Cognitive Impairment**

**Authors:** Jee Hyung Pyo MD<sup>1</sup>; Hyukjun Lee MD<sup>2</sup>; Jakyung Lee MA<sup>2</sup>; Daseul Lee MA<sup>2</sup>; Hyeona Yu MA<sup>2</sup>; Shinn-Won Lim PhD<sup>4</sup>; Woojae Myung MD, PhD<sup>2,3</sup>; Doh Kwan Kim MD, PhD<sup>1</sup>

1. Department of Psychiatry, Samsung Medical Center, Sungkyunkwan University, School of Medicine, Seoul, South Korea
2. Department of Neuropsychiatry, Seoul National University Bundang Hospital, Seongnam, Republic of Korea
3. Department of Psychiatry, Seoul National University College of Medicine, Seoul, Republic of Korea
4. Department of Health Sciences and Technology, SAIHST, Sungkyunkwan University, Seoul, Republic of Korea

**Objective:** Patients with cognitive disorders such as Alzheimer’s disease (AD) and mild cognitive impairment (MCI) frequently exhibit depressive symptoms. Depressive symptoms can be evaluated with various measures and questionnaires. Geriatric Depression Scale (GDS) is a scale that can be used to measure symptoms in geriatric age. Many questionnaires usually sum up symptom scales. However, core symptoms of depression in these patients and connections between these symptoms have not been fully explored yet. Thus, the objectives of this study were: 1) to determine core symptoms of two cognitive disorders, Alzheimer’s disease and mild cognitive

impairment; and 2) to investigate the network structure of depressive symptomatology in individuals with cognitive impairment in comparison with those with Alzheimer's disease.

**Methods:** This study encompassed 5,354 patients with cognitive impairments such as Alzheimer's disease [n = 1,889] and mild cognitive impairment [n = 3,464]. The Geriatric Depression Scale, a self-administered questionnaire, was employed to assess depressive symptomatology. Using exploratory graph analysis (EGA), a network analysis was conducted and the network structure was evaluated through regularized partial correlation models. To determine the centrality of depressive symptoms within each cohort, network parameters such as strength, betweenness, and closeness were examined. Additionally, to explore differences in the network structure between Alzheimer's disease and mild cognitive impairment groups, a network comparison test was performed.

**Results:** In the analysis of centrality indices, "worthlessness" was identified as the most central symptom in the Geriatric Depression Scale among patients with Alzheimer's disease, whereas "emptiness" was found to be the most central symptom in patients with mild cognitive impairment. Despite these differences in central symptoms, the comparative analysis showed no statistical difference in the overall network structure between Alzheimer's disease and mild cognitive impairment groups.

**Conclusion:** Findings of this study could contribute to a better understanding of the manifestation of depressive symptoms in patients with cognitive impairment. These results are expected to aid in identifying and prioritizing core symptoms in these patients. Further research should be conducted to explore potential interventions tailored to these core symptoms in patients with Alzheimer's disease and mild cognitive impairment. Finding out core symptoms in those groups might have clinical importance in that appropriate treatment for neuropsychiatric symptoms in patients with cognitive impairment could help preclude progression to further impairment.

**Keywords:** Network analysis, Depressive symptom, Cognitive dysfunction, Major depressive disorder, Alzheimer's disease, Mild cognitive impairment

## **P52: Measuring the Unspoken: Development of Two Instruments to Assess Nursing Home Caregivers' Implicit Associations with Behaviors to Improve Residents' Mood**

**Author(s):** Inge Knippenberg, Ruslan Leontjevas, Ine Declercq, Jacques van Lankveld, Debby Gerritsen

**Background:** Within nursing home care, the role of professional caregivers is paramount. While certain caregiver behaviors, such as personal attention, can positively affect residents' mood, limited attention has been given to the automatic cognitive processes guiding these behaviors. Automatic cognitive processes refer to mental operations that occur rapidly and effortlessly, often beyond conscious awareness. These processes can impact habits and preferences, thereby influencing behavior.

**Objective:** This study aimed to develop and evaluate two pictorial Implicit Association Tasks (IATs) to measure nursing home caregivers' implicit associations with mood-improving behaviors for residents, focusing on implicit valence (liking) and motivation (wanting) regarding these behaviors.

**Methods:** Study 1 (N = 41) involved developing the Valence towards Behaviors to improve residents' Mood IAT (VBM-IAT) and the Motivation for Behaviors to improve residents' Mood IAT (MBM-IAT), and evaluating the content validity of target stimuli representing mood-improving behaviors. Study 2 (N = 230) examined stimulus



classification ease (accuracy and speed) for both target and attribute stimuli (representing positive or negative valence, and motivation or demotivation). Additionally, the IATs' internal consistency was examined. A sub-sample (N = 111) examined test-retest reliability, convergent validity (with self-reported attitude towards depression, altruism, and mood-improving behaviors), and divergent validity (against social desirability).

**Results:** Content validity was satisfactory (CVI:  $\geq .85$ ). Error rates were acceptable for attribute stimuli (4.0%), but above the accepted limit of 10% for target stimuli (12.4%). All stimuli exhibited prolonged response times exceeding the desirable 800 ms threshold. The VBM-IAT and MBM-IAT demonstrated good internal consistency (rsb: .81; .85, respectively) but poor test-retest reliability (ICC: .29; .25). Mixed model analysis showed that both IATs correlated with altruism (estimated effect: .28, 95% CI [.11, .45]; .24 [.07, .42]). The VBM-IAT related to self-reported mood-improving behaviors (.20 [.03, .36]), while the MBM-IAT associated with the behavioral subscale of attitude towards depression (.21 [.03, .39]). The IATs did not significantly correlate with other scales.

**Conclusions:** The IATs show potential in measuring caregivers' implicit valence and motivation regarding behaviors to improve residents' mood, offering an innovative pathway for investigating automatic cognitive processes in caregiving. However, some limitations in psychometric properties were identified, aligning with challenges in similar IATs.