Book of Abstracts
21st IPA International Congress
Virtual Learning

Live Symposia

100 - Artificial Intelligence in Geriatric Mental Health: Recent Advances in Clinical Research

Chair: Ellen Lee
Co-Chair: Helmet Karim
Presenters:
Ipsit Vahia
Andrea Iaboni

Synopsis
With the rise of wearable sensors, advancement in comprehensible artificial intelligence (AI) algorithms, and growing acceptance of AI in medicine, AI has great potential to more reliably diagnose, prognose, and treat mental illnesses. The rapidly rising number of older adults worldwide presents a unique challenge for clinicians due to increased mental health needs in the setting of a dwindling clinical workforce. AI has enabled researchers to better understand mental illnesses by taking advantage of 'big data.'

This symposium will present an overview of novel research leveraging AI (machine learning, natural language processing) to better track, understand, and support mental health and cognitive functioning in older adults.

Helmet Karim, PhD will present on prediction of treatment response in late-life major depressive disorder and the implications of those models.

Ellen Lee, MD will present on using natural language processing to understand psychosocial functioning in older adults.

Ipsit Vahia, MD will present on radio-based sensors to phenotype changes in behavior patterns that may correlate with a range of geropsychiatric symptoms.

Andrea Iaboni, MD DPhil FRCPC will present on multimodal wearable and vision-based sensors for the detection and categorization of behavioural symptoms of dementia.

The symposium includes three physician-scientists (Iaboni, Lee, Vahia), two women (Iaboni, Lee), and two early career faculty (Lee, Karim – co-chairs). The symposium represents four different institutions across the country (McLean/Harvard, Toronto Rehabilitation Institute/University of Toronto, UC San Diego, University of Pittsburgh) and four very different approaches using AI technology to improve understanding and outcomes in the field of geriatric mental health.

The symposium seeks to address the underutilization of AI in psychiatric research, especially in the field of aging research. The increased individual-level heterogeneity associated with aging; complex trajectories of decline in cognitive, mental, and physical health; and lack and slow adoption of older adult-centered technologies present great challenges to advancing the field. However, advances in the field of explainable AI and transdisciplinary development of AI approaches can address the unique challenges of aging research.

101 - Alzheimer Disease and Dementia: diagnostic challenges and future directions in Hispanic populations.

Jorge J Llibre Guerra, MD[1] , Daisy Acosta, MD[2] , Ivonne Z. Jiménez Velázquez, MD[3] , Ana Rodriguez-Salgado,MSc[4], Geeske Peeters,PhD[4] Juan de Jesús Llibre Rodriguez, MD, PhD[5].

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Alzheimer's disease (AD) and dementia has emerged as a significant societal issue and a global priority. The prevalence of dementia is rising more rapidly in low and middle income countries (LMIC) than in high income countries. A growing body of evidence shows that prevention through risk factor management is the key to reducing the burden of dementia in the society, especially in LMIC. However, a one-size-fits all approach to health promotion is neither efficient nor effective. Latin American countries (LAC) have unique challenges related to dementia, including rapid aging population, high admixture degree and risk factors profile, which influence the prevalence and presentation of dementia. During this session, we will present findings and tools that will help tailor and personalize risk factor management in Hispanics populations. Participants will be first introduced to genetics of Alzheimer disease in Hispanic populations relative to non-Hispanics and the influence of gene by environment interactions. The second presentation will report on the epidemiology and risk factors of AD using cross countries/society comparisons (Non-Hispanics whites vs Hispanics living in US vs Hispanics living in Latin America.) The third presenter will discuss the development of a tool that visualizes how each risk factor contributes to the risk of dementia and how one may lower their risk by addressing the risk factors. The tool can be used in primary care settings in Cuba, Dominican Republic and Puerto Rico. Finally, the fourth presenter uses state-of-the-art digital assessment tools (brain health assessment), for low-cost monitoring of cognitive functioning, MCI and dementia. Such instruments are important for future evaluation of the impact of preventive strategies. At the end of the presentations, attendees will be able to identify the unique genetic and social determinants that drive AD in LAC. Recommendations will be given for preventive strategies tailored to LMIC. The findings to be shared will be essential for building evidence-based interventions tailored to reducing the burden of dementia in the Hispanic populations.

Session Chair:
Juan Llibre Rodriguez

Alzheimer Disease and genetics in Hispanic Populations
Jorge J Llibre-Guerra

Alzheimer disease epidemiology and risk factors in Caribbean and non-Caribbean Hispanics populations.
Ivonne Z. Jiménez Velázquez

Development of a tool to motivate for healthy behaviors to prevent dementia in the Caribbean.
Daisy Acosta

A brief digital cognitive assessment for detection of cognitive impairment in Hispanics populations.
Ana Rodriguez-Salgado

102 - IPA Guidelines on Dementia and Agitation: From Provisional to Final

Co-Chairs: Jeffrey Cummings M.D. and Mary Sano, Ph.D.
Additional Presenters: Jacobo Mintzer M.D., Paul Rosenberg M.D., and Michael Splaine

Agitation is common across neuropsychiatric disorders and contributes to disability, institutionalization, and diminished quality of life for patients and their caregivers. In 2015 IPA convened a transparent process to build a consensus definition of agitation and agreement on what elements should be included in the syndrome that resulted in publication of provisional guidelines. (Cummings et al, 2015)   In the 2020-2021 year, the two co-chairs of this symposium have led a new workgroup to make the provisional consensus definition of agitation in patients with cognitive disorders that can be applied in epidemiologic, non-interventional clinical, pharmacologic, non-pharmacologic interventional, and neurobiological studies and guide treatment final.

Co-Chairs will discuss methods used in updating and findings and compare changes made to the provisional guidelines. Dr. Sano will present new findings on the biological basis of agitation in dementia and Dr. Mintzer will present on application of guidelines in the special circumstances of persons in palliative and hospice care. Dr. Rosenberg will discuss the special circumstance of agitation care in hospital emergency departments. Mr. Splaine will present findings about the utilization of the 2015 guidelines in the peer reviewed literature, professional and government dementia care guidance, and clinical trials.

Cummings, J., Mintzer, J., Brodaty, H., Sano, M., Banerjee, S., Devanand, D., . . . Zhong, K. (2015). Agitation in cognitive disorders: International Psychogeriatric Association provisional consensus clinical and research definition. *International Psychogeriatrics, 27*(1), 7-17. doi:10.1017/S1041610214001963

103 - A global perspective on dignity-based psychogeriatric care: An urgent call for a Convention on rights for older people

Debanjan Banerjee, Kiran Rabheru, Carlos Augusto de Mendonça Lima, Gabriel Ivbijaro*

Abstract
The world is ageing fast with a renewed emphasis on comprehensive healthcare for older people. This has created a paradigm shift towards rights and social justice-based approach to augment the medical model of mental healthcare. Dignity is one such construct embedded into the human-rights approach. It comprises of self-respect and worthiness of an individual as well as social acceptance of his/her identity. Dignity is a multi-faceted concept and consists of privacy, independence, inclusion, autonomy, etc. It includes community participation, functional abilities, rights to sexuality and oral healthcare, outcomes which are often neglected in conventional psychogeriatric care. Ageism and fear of ageing can exacerbate social stereotypes thereby compromising dignity in older people and risk of elder abuse. Geriatric psychiatry is uniquely positioned to equip mental healthcare with a 'dignity-based' approach promoting social connectedness and health equality. This further needs integration into all levels of public health for better access and holistic psychosocial management.

With this background and on the backdrop on the unique psychosocial challenges posed by the COVID-19 pandemic, this symposium glances at various dimensions of dignity-based psychogeriatric care:
- Practical approach towards dignity promotion in healthcare using an attributional model
- Perspectives, healthcare challenges and research from LMIC like Brazil and India related to dignity among older people and its impact on ageism and human rights

- Rights-based geriatric mental healthcare in the developed nations
- Finally, an urgent call for Convention on human rights of older persons for promoting dignity in healthcare and combatting ageism

INDIVIDUAL SPEAKERS & TOPICS

1. Promoting dignity and supporting older adults - as practical approach
PRESENTER:
Professor Gabriel Ivbijaro MBE JP
(MBBS, MMedSci MA, PhD, FRCGP, FWACPsych, IDFAPA)
AFFILIATIONS:
1. Professor, NOVA University, Lisbon, Portugal
2. Honorary Visiting Fellow, Faculty of Management, Law and Social Sciences, University of Bradford, UK
3. President, The World Dignity Project
4. Secretary General, WFMH
5. Medical Director, The Wood Street Medical Centre, London, UK

2. The respect of dignity in the mental health care of Brazilian older adults.
PRESENTER:
Dr.Carlos Augusto de Mendonça Lima (M.D., MSci., DSci.)
AFFILIATION:
Chair, WPA Section of Old Age Psychiatry

3. Dignity-based mental healthcare among older people in the world's largest ageing democracy: A slippery slope forward
PRESENTER:
Dr. Debanjan Banerjee (MD, DNB, MNAMS, DM)
AFFILIATION:
Consultant Geriatric Psychiatrist, Kolkata, India

4. Ageism-Need for a Convention on the rights of older persons
PRESENTER:
Dr. Kiran Rabheru (MD, CCFP, FRCP, DABPN)
AFFILIATION:
Geriatric Psychiatrist, TOH
Professor of Psychiatry, U of Ottawa
Chair, Steering Group, GAROP
Chair of the Board, ILC-Canada

Live Free/Oral Communications

200 - Neuropsychiatric symptoms influence performance of activities of daily living in symptomatic Alzheimer's Disease

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[8]Patras Dementia Day Care Center, Corporation for Succor and Care of Elderly and Disabled – FRODIZO, Patras, Greece

Background: The triad of symptom groups of Alzheimer's disease (AD) encompasses cognitive impairment (e.g. impaired memory or orientation), neuropsychiatric symptoms like apathy, depressive mood, delusions, hallucinations or anxiety, and functional impairment exclusively in complex activities of daily living (cADL, e.g. preparing meals, managing finances) in minor neurocognitive disorder due to AD and both in complex and basic ADL (bADL, e.g. dressing, toileting) in major neurocognitive disorder due to AD. These functional impairments are widely thought to be exclusively attributable to the cognitive deficits of the disease. Of note, mounting evidence indicates that neuropsychiatric symptoms are very common in AD and pose a heavy burden to both patients and their caregivers.

Research objective: To unravel potential associations between neuropsychiatric symptoms and cADL and bADL in individuals with neurocognitive disorder due to AD by means of machine learning (ML).

Methods: The study included 189 cognitively intact older individuals (CI) and 130 with either minor or major neurocognitive disorder due to AD. Neuropsychiatric symptoms were captured with the Neuropsychiatric Inventory (NPI), covering delusions, hallucinations, aggression, depression, anxiety, apathy, elation, disinhibition, irritability, motor disturbance, nighttime behavioural disturbances and appetite disturbances; cognitive function was assessed with the Cognitive Telephone Screening Instrument (COGTEL); The Bristol ADL scale, an informant-rated measure, was employed for tapping performance of ADL. A variety of ML-models was constructed and trained/tested using a 5-fold cross validation, with SMOTE employed as a remedy for class imbalances. In all cases the features had been selected beforehand based on LASSO technique. The dependent variable was either cADL or bADL (after their discretization based on kMeans quantization). Additionally, the modelling of the diagnosis was also attempted within our ML framework.

Results: Gradient Boosting models performed superiorly. cADL and bADL levels are predicted based on both deficits in cognitive domains and NPI variables with an accuracy of 82.3% and 84.8% respectively.

In addition, diagnosis can be predicted, with an accuracy of 83.5%, based on a model in which NPI and Bristol ADL variables were significant predictors.

Conclusions: cADL- and bADL performance in patients with AD is influenced by both cognitive deficits and neuropsychiatric symptoms.

201 - Care Home Residents as Artists: Digital Connections in the age of Disconnect.

Dr Nicola Abraham, Senior Lecturer Applied Theatre Practices, Royal Central School of Speech and Drama

Rachel Hudspith, Activities Co-ordinator, Dementia Care Team, Imperial College Healthcare NHS Trust/Royal Central School of Speech and Drama

Abstract:

Throughout the current global pandemic, many people have had to adapt to new ways of interacting through virtual platforms. For those with access to new technologies this transition has been straightforward, but not easy and for those without it, life has become socially isolating, frightening, and lonely. The impact of COVID-19 on the mental health of older adults is a serious concern, particularly for those living in care homes who have been forgotten or neglected by exclusionary government policy. Amnesty International's 2020 report As if Expendable: The UK Government's Failure to Protect Older People in Care Homes During the COVID-19 Pandemic provides analysis of the neglect to care and sufficiently support older adults living with dementia in supported living. The results of this inaction to provide care has led to many avoidable deaths, and caused fear and heartache for those who have lost family, friends and colleagues. It is at this moment, during the third UK lockdown that we would like to share a narrative of hope about the actions that we have taken within care home contexts to provide relief, reconnect residents safely with their neighbours, and found creative ways to inclusively provide care, support and celebrations of the identities of people in these contexts who have become statistics in news reports.

Between January and March 2021, undergraduate and postgraduate Applied Theatre students from The Royal Central School of Speech and Drama in partnership with Imperial College Healthcare NHS Trust collaborated with residents from One Housing Association to create and develop bespoke films, poems, songs and virtual reality 360 videos from the safety of their homes to bring to life their stories, hopes and inner artists. In this presentation, we will explore the impact of these projects on the participants' wellbeing and examine the importance of providing older adults opportunities to be creative. We will additionally offer insights into the relationships that were made and developed during the projects, including family connections, intergenerational connections and playful relationships that emerged between the residents themselves and their Carers.

Bibliography:

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202 - Music Therapy Intervention to Reduce Caregiver Distress at End of Life: A Feasibility Study

Kevin Whitford, MD, MS, MA, Angela Ulrich, Travis Dockter, Brianna E. Larsen, Christina Wood, Monica Walton, Christina M. Phelps, Martha J. Siska, Amy Stelpflug, Maureen Bigelow, Maria I. Lapid, MD

Context. Music therapy is frequently provided to patients at the end of life, and studies have shown a benefit in relief of symptoms and a positive impact on quality of life (QoL), but little is known regarding the effect of music therapy (MT) on caregivers. Caregivers are at risk for anxiety, emotional distress and experience anticipatory grief as the patient nears death. Caregivers are present with patients and may also benefit from MT.

Objective. To assess the impact of MT on caregivers for hospice patients and determine the feasibility of research in this population.

Methods. Twenty caregivers of patients hospitalized for general inpatient hospice care were enrolled. MT was provided by a board-certified music therapist, and sessions included pre-MT assessment, 20-45 minutes of MT, and post-MT assessment. Caregiver stress was measured with the Pearlin Role Overload Measure (ROM), QoL was measured with the Linear Analogue Self-Assessment (LASA), and depression and anxiety were measured with the Patient Health Questionnaire for Depression and Anxiety (PHQ-4). These three measures were taken pre-MT, post-MT and 6 months post-MT. Caregivers were also asked to complete a Music Therapy Program Survey post-MT.

Results. The MT intervention was completed for 15/20 caregivers (75%). Of those who did not complete MT, 2 withdrew prior, 1 was not available, 1 patient passed during the MT session, and 1 patient died prior to MT. 14 caregivers completed pre-MT and post-MT assessments, and 9 caregivers completed assessments at all 3 timepoints. The MT Program Survey (post-MT assessment, n=14) showed 100% of caregivers were very satisfied with MT and would recommend to others, 78% found MT effective for stress relief, 69% for relaxation, 71% for spiritual support, 86% for emotional support, and 71% for feeling of wellness.

Conclusion. Research on MT is feasible for acute hospice care caregivers with a majority of caregivers consenting to research and about half completing surveys pre-MT, post-MT, and 6-months post-MT (9/20). Future larger studies should be conducted to better assess the impact of MT on caregivers.

203 - Decisional capacity and advance care planning in older people who are incarcerated
Dionne Hart, M.D.

Abstract:

There is a growing number of older people incarcerated across the United States. With a population of greater than 300 million, the US has 5% of the world's population, yet incarcerates 25% of the world's prisoners. From 2000 to 2005, the percentage of prisoners in federal and state correctional institutions who were 55 and older increased by 33%. According to the American Civil Liberties Union older prison population has climbed 1300% since the 1980s, with 125,000 inmates aged 55 or older incarcerated.

Correctional facilities are the largest mental health institutions with 1 out of 5 individuals with serious mental health or substance use disorders. These facilities lack the capacity to provide long-term care for those with severe physical or mental health disorders even in the most ideal circumstances. Individuals within the criminal justice system have a higher burden of chronic physical and health disorders and have a lower life expectancy.

Health care decision making is one area where patients in custody have autonomy in discussing advance directives, substitute decision makers and medical decision making. However, prisoners are at risk of suboptimal care, unmet palliative and end of life care needs, and lacking or inappropriate surrogates. Without documentation of advance directives or surrogates there are bureaucratic, practical, and legal barriers particularly for those without family or friends. In addition, some individuals involved in the correctional system's only surviving family members may also be their victims, thus have a conflict of interest.

This presentation will explore capacity and substitute decision making for individuals involved in the criminal justice system who have severe mental and physical health disorders. A case description will be used to illustrate a decision-making tree for patients who are incarcerated. As the world population continues to age, the number of older people who are incarcerated and unable to make healthcare decisions will continue to increase. In this special population, correctional system clinicians and providers need to be familiar with strategies to address the need for advance care planning before older people lose decisional capacity.

204 - Psychological distress and support needs of community residing older adults in urban India – An exploratory study

Authors: Jayashree Dasgupta, Meenakshi Chopra
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Background: COVID pandemic in India, lockdowns and an unprepared health system has affected wellbeing of older adults. Low public awareness about mental health issues and stigma also contribute to low help seeking. Exploring impact of COVID on mental health of older adults and understanding support needs is essential.

Research Objective: To examine mental wellbeing and coping strategies used by urban community residing older adults during the pandemic in India.
Method: As part of an ongoing community engagement initiative with older adults and their families, an online survey was conducted during the first wave of the pandemic in April/May 2020. Sociodemographic details and information on coping strategies were gathered. The five-item General

Health Questionnaire (GHQ) was used to screen for psychological distress and data were analyzed using descriptive statistics. Respondents were contacted again in May 2021 during the second COVID wave for a telephonic interview to understand current levels of distress and coping strategies. Consent was taken for audio recording and interviews were conducted using a semi-structured interview guide. Interviews were transcribed and analyzed using thematic analysis.

Preliminary results of the ongoing study: Respondents (N=54) aged between 40-86 years (Mn = 60; SD = 18.9). Majority were male (61%), retired or homemakers (57%) and widowed/unmarried (52%). Of the sample 70% had one or more pre-existing medical conditions. A score of ≥ 2 on GHQ in 66% respondents indicates psychological distress. Stressors included health and well-being of family (62%), difficulty managing household work (42%) and increase in family conflicts (17%). Although 72% discussed their worries with family/friends, only 25% considered speaking with a mental health professional indicating low help seeking. Of respondents contacted again, 40% citied ill health or being busy as reasons for refusal to participate. Of those who agreed, 33% reported psychological distress. In-depth interviews, showed use of online mental wellness sessions and yoga/meditation to be beneficial coping strategies. Need for more online support groups was also highlighted.

Conclusion: Psychological distress is present amongst community residing older adults in urban India. A change in attitude towards tele mental health must be leveraged to provide support for adults experiencing psychological distress.

205 - Holocaust survivors residence in Israel and nursing homes around the world during COVID-19 pandemic

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Abstract
Significant risk factors for Covid-19 infection include old age ,somatic illnesses as well as psychiatric and neurological illnesses such as dementia and schizophrenia .

This lecture reviews the specific case of measures and considerations that were used to protect elderly holocaust survivors with severe mental illness or dementia, in Israel. We had to protect our residents from the virus, yet preserve certain autonomy.

In addition this lecture reviews global aspects of nursing homes struggle during the pandemic as reflected in various periods (at beginning in march 2020, during various waves and after vaccinations). During the pandemic 100 holocaust survivors were monitored and protected in their long term residence at Lev-Hasharon mental health center, Israel with variety of measures such as recurrent PCR tests to inpatients and staff, isolation during fever and after emergency department visits etc. The features of caregivers visits changed in time. The safety measures that were taken in our nursing home and around the world is reviewed as well as the demand for preserving the autonomy and rights of the tenants.

At the beginning families could not visit at all and virtual contacts were maintained in patients that could communicate. After the first wave a "drive in" method was carried out, families communicated with their relatives from a car.

During the second wave of the virus in Israel (September 2020), an outbreak spread in our residence. 14 patients tested positive for COVID19, all suffering from dementia or schizophrenia. They were immediately placed in quarantine in Corona departments in other geriatric and general hospitals. All patients came back after recovering, small part of them regressed.

As the pandemic continued we allowed visits with social distance and masks that were monitored by the staff. After vaccinations we allowed families to be with the elderly patients in the open yard without staff inspection. Four patients were infected during the third wave, although they were immunized. We had to consider every step of the way protection versus some autonomy to our patients and families and weigh creative ways to do this.

207 - The impact of changes in activities offered on care professional burden during the COVID-19 visitor ban in long-term care facilities

Henriëtte G. Van Der Roest, Marieke Kroezen, Egbert Hartstra, Claudia Van Der Velden, MSc, Marleen Prins, MSc

Background
Residents of long term care facilities (LTCFs) and their professional caregivers have been hit hard by the coronavirus. During the COVID-19 outbreak, many countries imposed national visitor-bans for LTCFs. In the Netherlands, the ban was in place from 20 March 2020 onwards and ended (partly) on 15 June 2020. The usual meaningful and pleasant day structure that is created through organized (group) activities, was heavily impacted by the visitor ban. It remains unclear which particular types of activities were stopped, whether 'alternative' activities were introduced that may acquire a structural character in the future, and how this affected care workers.

Methods
We conducted online questionnaire research among LTCF residents, family members and care professionals at two time points; six weeks after the visitor-ban was implemented (T1) and one week after the ban was (partly) lifted (T2). The three groups received questionnaires on the consequences of the COVID-19 outbreak and the restrictive measures in place. Respondents were recruited independently for each measurement. This study only uses care professionals' data. The influence of the up- and downscaling of activities on care professionals' burden and ability to provide care was investigated using multivariate multiple linear regression.

Results
811 professionals completed the questionnaire during T1 and 324 care workers during T2. A decrease in regular group activities during the visitor-ban was reported. Especially exercise activities, creative activities and music activities were undertaken less frequently. Also domestic activities, such as eating together and watching television, took place less frequently as compared to before the visitor-ban. Activities that could be easily done on the unit, with sufficient social distance, were undertaken more frequently, such as music activities, conversations and playing games in the living room. The impact of the up- and downscaling of activities on care professional burden, and the perceived ability to provide adequate care, will be presented.

Conclusions
Activities are an important means for residents of long term care facilities for obtaining pleasure and giving a meaningful structure to the day. Future lessons can be learned from the adjustments that had to be made in the range of activities offered during the visitor-ban.

208 - Person-centred infection prevention and control during a pandemic: The Dementia Isolation Toolkit

Authors: Andrea Iaboni, Hannah Quirt, Steven Stewart, Alisa Grigorovich, Claudia Barned, Kevin Rodrigues, Pia Kontos, Charlene Chu, Arlene Astell, Katia Engell, Colleen Maxwell, Julia Kirkham, Kathleen Bingham, Alastair Flint

Objectives: People working in long-term care homes (LTCH) face ethical dilemmas about how to minimize the risk of spread of COVID-19, while also minimizing psychological hardship and other harms of infection control measures on residents. The Dementia Isolation Toolkit (www.dementiaisolationtoolkit.com; DIT) was developed to address the gap in ethical guidance for LTCH on how to safely and effectively isolate people with dementia while supporting the personhood and well-being of residents. In this presentation, we will present the DIT and report on the results of a survey of LTCH staff in Ontario, Canada on their experiences isolating residents in LTCH and the use of the DIT in supporting person-centred isolation care.

Methods: A link to an online survey was distributed to LTCH staff through provincial organizations and agencies as well as through social media and the DIT website. Inclusion criteria were LTCH staff working on-site at a LTCH since March 1, 2020, who had direct or indirect experience with the isolation/quarantine of LTCH residents. Results were summarized descriptively.

Results: A broad sample of LTCH staff (n=207) participated in the survey, most of whom had experienced an outbreak in their LTCH. Dementia (96%) was the most important barrier to implementation of infection control measures in LTCH, followed by staff distress about the effects of isolation on residents (61%). Important facilitators for isolation included delivery of 1:1 activities in the resident's room (81%) and designating essential caregivers to provide support (67%), while inadequate staffing levels were reported as a barrier (55%). 65% of respondents indicated some familiarity with the DIT, and of those who had used the toolkit, 62% found it helpful in supporting isolation care, particularly in developing care plans and making and communicating decisions. Of those who had used the DIT, 48% found it fairly or very helpful at reducing their level of distress.

Conclusions: Isolation as an infection control and prevention (ICP) measure in LTCH environments can be harmful to residents and create moral distress in staff. ICP guidance and support of LTCH needs to address how to minimize these harms by providing dementia-specific guidance such as in the DIT.

209 - The Impact of Function Focused Care in Assisted Living Communities in the United States during the COVID-19 Pandemic

Elizabeth Galik, Barbara Resnick, Rachel McPherson, Erin Vigne

The purpose of this study was to test the preliminary effectiveness and feasibility of implementation of a function focused care intervention, referred to as Function Focused Care for Assisted Living Using the Evidence Integration Triangle in Assisted Living Communities with Residents with Dementia, and consider the impact of COVID-19 restrictions on incidences of COVID-19 and worsening of behavioral symptoms. The intervention was designed to facilitate a philosophy of care in which staff are educated and helped to actively engage residents in functional and physical activity during all care interactions. This was a single group pre-post intervention study including 51 assisted living communities in a single state in the United States. The communities ranged in size from 8 to 50 beds with the mean number of beds being 13.25 (SD=7.69). The majority (99%) were for profit. There was significant improvement in the support of the environments (p=.01) and policies (p=.04) for physical activity. There was no significant change in falls, emergency room transfers, hospitalizations or nursing community transfers over time. Overall there were only 7 (18%) communities that had COVID-19 positive patients with the numbers ranging from 1-16 residents and percentage ranging from 0-31% and a mean percentage of 17%. The majority did not require that the residents quarantine in their rooms (87%) although they did restrict visitation with the exception of 3 (8%) communities that let families visit after training and with exposure and symptom risk assessments completed at each visit. Communities in which residents were quarantined in their rooms had a 40% greater likelihood of having COVID-19 positive residents than communities that did not quarantine residents. None of the restrictions imposed were associated with worsening of behavioral symptoms. The findings are descriptive and pilot in nature but can be used to guide future research around prevention and management of infections in assisted living.

210 - Are visits allowed? The impact of the COVID-19 pandemic on care home visitation and care delivery in the UK

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Background: COVID-19 has caused the sudden closure of care homes to the outside world, to stem the virus from infecting some of the most vulnerable groups of people – older adults residing in care homes. With very little knowledge to date, we aimed to explore the impact of COVID-19 on care provision and visits in care homes from staff and family members' perspectives.

Methods: Care home staff and family carers of people living with dementia (PLWD) across the UK were recruited via convenience sampling and participated via telephone or Zoom. Participants took part in a semi-structured remote interview. Baseline data were collected between October and November 2020, and follow-up interviews were collected throughout March 2021. Anonymised transcripts were analysed separately by two research team members using thematic analysis, with codes discussed and themes generated jointly, supported by research team input.

Results: 42 participants (26 family carers and 16 care home staff) took part in the baseline interviews, and 20 purposefully sampled participants (11 family carers and 9 care home staff) were followed up. Prior to vaccination roll out in the UK, at baseline, family carers expressed concern about a lack of clear guidance throughout the pandemic, with care homes delivering care differently and disparities noted in the levels and types of visiting allowed for family members. Lack of communication between care homes and family members, but also government and care homes, led to family carers feeling excluded and concerned about the well-being of their relative. Data on follow-up interviews are still being analysed.

Conclusions: This is the first empirical evidence to show how the pandemic has caused severe difficulties in providing adequate care for care home residents, with not only residents, but also care home staff and family carers being negatively affected. Follow-up data will shed light onto the impact of vaccination and eased visitation rights put in place since March 2021 on care delivery and connections between family carers and residents.

211 - Changes to post-diagnostic dementia support in England and Wales during the COVID-19 pandemic

Alison Wheatley, Marie Poole, Louise Robinson

Background: The COVID-19 pandemic precipitated widespread change across health and social care in England and Wales. A series of lockdowns and UK Government guidance designed to reduce the spread of COVID-19 which emphasised social distancing and increased use of personal protective equipment led to changes such as increased use of remote consultation technologies and the closure of services deemed non-essential. This included many services for people with dementia and their families, such as day centres and dementia cafes.

Objective: To explore the changes made to services during the pandemic and the impact of these changes on the delivery of good post-diagnostic dementia support.

Method: Professionals who had previously been recruited to the ongoing PriDem qualitative study were approached for follow up interview. Eighteen interviews with a total of 21 professionals working in health, social care and the third sector were conducted using telephone or video conferencing. Interviews were audio recorded, transcribed and checked prior to thematic analysis.

Results: Key themes emerging from preliminary analysis of the data include: uncertainty about the future and the need to adapt quickly to shifting guidance; changing job roles and ways of working; the emotional and physical impact of the pandemic on staff working with people with dementia and their families; and the impact of changes made (e.g. increased PPE, remote working) on the ability to deliver post-diagnostic support. However, there were also some unintended positive outcomes of the changes. These included the ability to include family members living at a distance in remote consultations, allowing for more robust history-taking, as well as the uptake of technology to facilitate cross-sector and multidisciplinary working between professionals.

Conclusion: Delivering post-diagnostic dementia support during COVID-19 was challenging and forced dementia services to make adaptations. Participants expected that some of these changes would be incorporated into post-pandemic work, for example increased use of technology for multidisciplinary team meetings or blended approaches to patient-facing services involving both virtual and face to face work as appropriate. However, most participants agreed that it was not appropriate nor desirable to provide fully remote post-diagnostic support on a full time basis.

212 - Involvement, Worries and Loneliness of Family Caregivers of People with Dementia during the COVID-19 Visitor-ban in Long-term Care Facilities

Marleen Prins, Bernadette Willemse, Claudia van der Velden, Anne Margriet Pot
& Henriëtte van der Roest

Background
To prevent COVID-19 from spreading in long-term care facilities (LTCFs), the Dutch government took national restrictive measures, including a visitor-ban in LTCFs between mid-March and May 2020. Physical visits were replaced by alternatives as telephone or video calls. This study examines the relationship between the involvement of family caregivers (informal caregivers, ICs) of people with dementia (PwD) living in LTCFs and IC mental health during the visitor-ban. Furthermore, we examine whether this relationship is moderated by the frequency of contact with PwD during the visitor-ban and resilience of ICs.

Methods
A cross-sectional study was carried out, 375 Dutch long-term care organizations were invited by email to participate. LTCFs sent eligible ICs a link to an anonymous online survey. Family involvement was assessed by the visiting frequency and doing social (e.g. drinking coffee), or social and task-related (e.g. laundry) activities during visits before the visitor-ban.

Results
958 ICs of PwD participated. Contact frequency increased for 17% ICs and decreased for 25% compared to visiting frequency. 43% of ICs did only social activities and 57% social and task-related activities. ICs who visited their relatives at least once a week before the visitor-ban were more worried during the visitor-ban than those with less regular visits (main effect). Contact frequency during the visitor-ban was a moderating factor, ICs who visited the PwD daily before, but had at least weekly contact during the visitor-ban, worried less. No main effects for activity type were found on loneliness , however resilience was a moderating factor. Resilient ICs who did more diverse activities (task and social related) before the visitor-ban, experienced less loneliness during the visitor ban.

Conclusions
The results implicate that to reduce worries amongst ICs, LTCFs should facilitate in continuing contact with PwD during a visitor-ban, specifically in highly involved ICs. Also, non-resilient ICs that generally only do social activities are more prone to loneliness. It is advisable for healthcare and welfare professionals to reach out to this group, to help them with overcoming their loneliness.

213 - ECT-AD: Ethics and informed consent issues

Presenter: Louis Nykamp, M.D.
Co-authors:
Brent P. Forester, M.D., M.Sc.
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Preferred Presentation Type: Free/Oral Communication Presentations

Abstract:

Agitation is experienced by over 90% of individuals with Alzheimer's disease (AD) which increases morbidity and mortality and contribute to caregiver burden. There are no FDA-approved treatments for severe agitation in people with advanced dementia. Behavioral interventions are first-line management strategies but are not effective in the most severely agitated patients. Off-label use of psychotropic medications have limited efficacy and risk for adverse effects. New management strategies for severe agitation in AD refractory to psychopharmacologic and behavioral interventions are timely and warranted. Preliminary studies provide evidence for the safety and efficacy of acute electroconvulsive therapy (ECT) in reducing agitation in this population.

The ECT-AD study is a multi-site NIH-funded randomized single-blind randomized controlled trial to investigate the safety and efficacy of ECT in severe and treatment refractory agitation and aggression in AD. In a vulnerable population with advanced dementia and lack of capacity to provide informed consent, there are ethical and consent issues that need to be considered. In this presentation, we will describe the human research subject aspects of working with this population, the process of informed consent and variation of state laws, and efforts to ensure participant safety and minimize undue influence or coercion.

214 - End-of-life decision-making capacity in older people with serious mental illness

Carla Kotzé, Louw Roos, René Ehlers

ABSTRACT

Objectives:
The study's main aim was to assess the end-of-life decision-making capacity and health-related values of older people with serious mental illness.

Design, Setting, and Participants:
This was a cross-sectional, observational study, done at Weskoppies Psychiatric Hospital, Gauteng Province, South Africa that included 100 adults older than 60 years of age and diagnosed with serious mental illness.

Measurements:
Socio-demographic, diagnostic, and treatment data were collected before administration of the Mini-Cog and a semi-structured clinical assessment of end-of-life decision-making capacity. Finally, the standardized interview, Assessment of Capacity to Consent to Treatment, was administered. This standardised instrument uses a hypothetical vignette to assess decision-making capacity and explores healthcare-related values.

Results:
According to the semi-structured decision-making capacity assessment, 65% of participants had decision-making capacity for end-of-life decisions. The Assessment of Capacity to Consent to Treatment scores were significant (p<0.001) when compared to decision-making capacity. Significant correlations

with impaired decision-making capacity included: lower scores on the Mini-Cog (p<0.001); a duration of serious mental illness of 30-39 years (p=0025); having a diagnosis of schizophrenia spectrum disorders (p=0.0007); and being admitted involuntarily (p<0.0001).

Conclusions:
Two thirds of older people with serious mental illness had decision-making capacity and were able to engage in end-of-life care discussions. Healthcare providers have a duty to initiate advance care discussions, optimize decision-making capacity, and protect autonomous decision-making. Chronological age or diagnostic categories should never be used as reasons for discrimination, and older people with serious mental illness should receive end-of-life care in keeping with their preferences and values.

Keywords: End-of-life, decision-making capacity, values, elderly, serious mental illness

215 – ECN Awards: Anticholinergic Burden: A Study in a Psychiatry of Later Life Cohort
Liam C. Kennedy, Chinyere Nwogbunyama

Background
Medications with anticholinergic activity are widely prescribed for a variety of medical, surgical, and psychiatric illnesses. There is strong evidence that the cumulative anticholinergic properties of such medications (i.e., the anticholinergic burden) contributes to significant longer-term adverse effects, including dementia, impaired mobility, and increased mortality. Despite this, the anticholinergic burden is often not given due consideration when cliniciansprescribe or review medications in routine clinical practice. This is of particularrelevance in services working with elderly patient populations, who are both more likely to experience polypharmacy and more vulnerable to medication adverse effects. Greater awareness of the risks of anticholinergic prescribing may lead to improvements in longer-term cognitive and physical functioning,and subsequently decreased disease burden on individuals and society as a whole.

Objectives/Aims
To identify and quantify anticholinergic burden among all patients currentlyattending a rural Psychiatry of Later Life service.

Methods
This was a cross-sectional observational study. Chart reviews were carried out on all patients open to the service at the time of the study in November 2020. Each patient's medication regime was analysed to calculate its overall score onthe Anticholinergic Effect on Cognition Scale (AEC), using an online tool developed by South London and Maudsley NHS Foundation Trust. Other variables such as each patient's age, sex, and cognitive status (categorized as no cognitive impairment; mild cognitive impairment (MCI); or dementia) were also documented. Data was anonymised on collection. AEC scores of 2 or morewere deemed to be at threshold for 'review and withdraw or switch' of medications.

Results
A total of 80 patients were included in the study (48 female; mean age 77 [SD = 6.5] years). 45% of patients had a documented diagnosis of dementia, 11%had a documented diagnosis of MCI and 44% had no documented cognitive impairment. Overall, the majority of patients (53.75%) were found to have an AEC score of 2 or greater (AEC range

0-6, mean 2.5 [SD = 1.5]). Of patients with a diagnosis of dementia, 58% were found to have an AEC of 2 or greater.

Conclusions
The possible detrimental effects of prescribed medication on cognition and physical health are likely under-recognised in routine clinical practice. Greaterawareness of the anticholinergic properties of a wide variety of commonly prescribed medication may lead to more selective and informed prescribing.

Abstract has been accepted for a poster presentation at the British Association for Psychopharmacology Summer Meeting (July 2021), and at the European College of Neuropsychopharmacology Annual Congress (October 2021).

216 – ECN Award: 'The Meaning of Companion-Animal Support in Community-Dwelling Older Adults: An Integrative Review'

Author List: Reniers, P.W.A., Declercq, I., Gerritsen, D., Hediger, K., Enders-Slegers, M-J., & Leontjevas, R.

Background: Western countries face an aging population and increasing number of people with chronic illnesses. Many countries have shifted from a focus on institutional care to home-based care due to growing healthcare costs and pressure on long-term care. Despite, the increasing difficulty for contemporary family structures to support community-dwelling older adults (CDOA) who need care. However, about 50% of households own pets which may provide some social support for CDOA. A dearth of studies investigated the support pets provide to CDOA that receive long-term care but a better understanding of pets' support in CDOA is needed to help develop healthcare protocols and interventions that account for pets in CDOA's lives.

Research Objective: To add insight into pets' roles in support systems and the meaning this has for CDOA.

Method: This integrative review was based on qualitative studies on CDOA with pets (average age 65+). Due to few studies on CDOA with pets with chronic illnesses, this review also includes CDOA without a chronic disease. PubMed and PsycINFO, were searched with (MeSH) variations on terms of older adults, pets, and qualitative study-designs. Additionally, reference lists of systematic reviews and HABRI Central were searched. The included articles were inductively analysed in ATLAS.ti.

Results: A total of 15 articles were included in the review. 28 subthemes were categorised in 7 bidirectional factors: social, care, physical health, emotional, cognitive, bonding, and behavioural. CDOA indicate that pets are very important in their lives and have a positive influence on their social environment, mental, and physical health. However, also negative aspects of pet ownership were discussed. Limitations of the review were the varying research questions and diversity of participants in the included studies. Furthermore, we identified a need in some CDOA to keep their pets as long as possible.

Conclusion: This review adds a more comprehensive view on the meaning and role of pets in providing support to CDOA. However, more research is needed into the effects of the revealed factors on the wellbeing of CDOA and healthcare organisations should consider the development of guidelines accounting for the pets of long-term care clients.

217 – ECN Award: Effect of a Chronic Disease Self-Management Support Program for Spouse Caregivers of Relatives with Dementia in Shanghai, China: A Randomised Controlled Study

Author List： Xiaoshan Rong[1], PhD candidate; Fan Wu[1],MM; Shuying Zhang[*],PhD
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Background: Research found that caregivers of relatives with dementia（RWD）were more vulnerable to chronic diseases than those caring for relatives with other diseases. Unfamiliarity with and/or difficulty in balancing their own health needs was common among the caregivers, from the findings of our previous studies and relevant literatures. Therefore, an educational and psycho-social support program named Chronic Disease Self-Management Support (CD-SMS) program was developed for spouse caregivers of RWD in Shanghai, China.

Research Objective: This study was to examine the effectiveness of the CD-SMS program on spouse caregivers' health-related results, including caregiving self-efficacy, self-efficacy for chronic condition management, and their health behavior.

Method: This study was a randomised, wait-list controlled design. A total of 53 participants with common chronic conditions were recruited and assigned to experimental (n = 25) and waiting-list control group (n=28) by stratified randomization. All participants received an illustrated psychoeducation booklet. The intervention group received six bio-weekly support group sessions, and the control group will receive the same support group sessions after the posttest. Participants in both groups received baseline and post-test assessments. The caregivers were assessed with the Chinese versions of Self-Efficacy for Managing Chronic Disease 6-item Scale, Self-Efficacy Questionnaire for Chinese Family Caregivers and Self-Management Behaviors Scale. The care recipients were measured with the Chinese version of Disability Assessment in Dementia.

Preliminary results of the ongoing study: A significant interaction between time and group was found in total scores of self-efficacy for managing chronic disease and caregiving self-efficacy for gathering information ($P＜0.05$). After intervention, caregivers in experimental group reported significant improvements in the total scores of self-efficacy for managing chronic disease, caregiving self-efficacy, and three self-management behaviors (stretching and strengthening exercise, cognitive symptom management, and communication with physicians). The care recipients' levels of activities of daily living in each group were worse at posttest compared to those at baseline ($P＜0.01$).

Conclusion: The findings indicated that the CD-SMS program was effective in improving the caregivers' confidence in balancing their caregiving management and their chronic health conditions management, and their main health behaviors were also improved.

Registration trial number: ChiCTR1800015602

Keywords: Dementia, Caregiver, Chronic disease, Self-management, Social support group.

OnDemand Symposia

300 - Increasing Complexity Awareness of Parkinson Disease Psychosis: Risk Factors, Symptoms, Diagnosing & Management

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Background:
After Alzheimer's disease, Parkinson' disease (PD) is the second most common age-related neurodegenerative disorder globally. Approximately 1 million individuals in the United States (US) have PD; every year 60,000 more Americans are diagnosed. PD is a movement disorder caused by dopamine insufficiency in the substantia nigra. The disease process is complicated by falls, constipation, dysphagia, insomnia, anxiety, depression, and behavioral/cognitive disorders. Upon diagnosis, evidence-based symptom management should include individualized nonpharmacologic and pharmacologic interventions along with lifestyle changes that will promote positive outcomes.

More than 50% of persons diagnosed with PD develop psychotic symptoms. Parkinson's disease psychosis (PDP) is a non-motor symptom and consists primarily of hallucinations and delusions. PDP is caused by neurotransmitter changes in the brain, some related to long-term use of parkinsonian medications. In many cases, PDP symptoms are mis-diagnosed as a chronic co-morbid condition, such as mild cognitive impairment or dementia.

Symptoms run from benign to aggressive. Undiagnosed and untreated symptoms can accelerate. Delirium caused by medications or infections may contribute to psychosis. Rapid Eye Movement Sleep (REMS) Disorder associated with PD results in daytime sleepiness and acting out dreams. All symptoms profoundly impact formal and informal care partners. When underlying causes are identified by expert clinicians, symptoms may be reversible. There are many evidence-based paths to follow such as managing polypharmacy, appropriate prescribing patterns, and the effective use of nonpharmacologic interventions.

Conclusion:

During this symposium the complexities of the disease are addressed including the toll PDP can have on the person living with PD, their care partner(s) and the interdisciplinary health care team. It is imperative clinicians can simultaneously manage the overlapping motor symptoms and PDP to prevent physical and mental disabilities and improve quality of life. After attending this session, clinicians will be able to provide quality care to individuals living with PDP and their care partners.

301 - Symposium social health: a pathway to inclusion and cognitive health

Social health, social inclusion and its associations with cognitive functioning

Myrra Vernooij-Dassen, Eline Verspoor, Claudia Hubers, Marta Lenart , Henrik Wiegelman, Marieke Perry

Background: Inclusion is taken as a natural situation, until feelings of exclusion are perceived. Social relations are for human beings like water to plants. Social health has been defined in 1946 by the WHO as the social domain of health. It is an umbrella concept that covers how the individual relates to his or her social environment and vice versa. Social inclusion is a key marker or characteristic of social health, represented by specific markers such as participation in leisure activities.

Objective: We aim to study theoretical mechanisms and social health markers relevant to inclusion and cognitive functioning.

Methods: identification of mechanistic pathways and systematic review on the relationship between combinations of social health markers and cognitive functioning and dementia in healthy older adults.

Results: We combined neurobiological and social pathways to guide our study. The search for social health markers yielded 4332 potentially relevant citations. Eleven articles were eligible for inclusion. Combining social health marker reflecting social exclusion (e.g. social isolation, financial deprivation, living alone and lacking basic social rights) revealed a significant risk factor for both the development of dementia and reduced cognitive functioning. A combination of a high educational level, high occupational complexity and participating in leisure activities was protective for good cognitive functioning and dementia.

Conclusion: Several social health markers are a pathway to social inclusion and to cognitive functioning, with markers reflecting exclusion being a risk factor, while those reflection inclusion are associated with protective effects. These findings open doors for interventions using the potential of social health in prevention of cognitive decline and dementia.

Social Health And Reserve in the Dementia patient journey (SHARED): Females, older adults, and people living with dementia are vulnerable to social isolation

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Background: The SHARED project is an international consortium exploring the link between social factors and the onset and course of dementia across the lifespan. We investigated differences in social health variables across sex, age (40-59, 60-79, 80+ years old), and cognitive status (23768 cognitively healthy, 6944 MCI, and 1318 people living with dementia).

Method: Data was harmonised across 12 international longitudinal studies of ageing (the English Longitudinal Study of Ageing and 11 COSMIC consortium studies). The effect of age, sex, cognitive status, and their combinations at baseline on social health variables such as relationship status, living situation, frequency of interactions, and loneliness were investigated.

Result: Our results indicated that age, sex, and cognition have significant but varying effects on each of the social health variables. Examining combinations of variables revealed that females aged 80+ were the most likely to be widowed (OR = 4.85), living alone (OR = 5.44) and to feel lonely (OR = 2.13). Males (OR = 1.35), and people living with MCI (OR = 2.48), or dementia (OR = 6.63) were more likely to report never interacting with friends/family.

Conclusion: Harmonised data from 12 longitudinal studies of ageing across 13 countries revealed that adults over the age of 60 (especially females) were more likely to live alone, and experience widowhood and loneliness. Similarly, people living with dementia and males were less likely to interact with friends/family. Public health policy for older adults must target these vulnerable groups to build pathways towards social inclusion.

Social health during the COVID-19 pandemic: The Rotterdam Study
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9. Department of Child and Adolescent Psychiatry/Psychology, Erasmus MC, The Netherlands

Background: The COVID-19 pandemic changed social life significantly. Sociodemographic factors and social health prior to the pandemic may determine how the changes in social life were perceived. Importantly, brain structure has increasingly been linked to social health and may play a role in how older adults perceived the change in social health during the pandemic.

Research Objective: To study the effect of brain structure prior to the COVID-19 pandemic on social health during the pandemic in community-dwelling older adults.

Method: Social health markers (loneliness, perceived social support) and sociodemographic data were assessed in the Rotterdam Study from 2012 to 2019. Participants underwent magnetic resonance imaging of the brain between 2005 and 2017. Global brain volumes, cerebral small vessel disease markers and white matter microstructural integrity were used as markers of structural brain health. On April 20th 2020, a COVID-19 questionnaire was sent out to all living Rotterdam Study participants (N=8,732). The questionnaire included a shortened version of the Center for Epidemiological Studies Depression Scale (CES-D), the 3-item UCLA Loneliness scale and items on social connectedness. Two follow-up questionnaires were sent out in May 2020. Linear mixed models will be used to study the associations between brain structure and social health markers during the COVID-19 pandemic.

Preliminary results of the ongoing study: Social health data during the COVID-19 pandemic were complete for 5,020 participants (mean age: 68.7 (SD 11.3); 56.8% women). Mean UCLA loneliness score was 4.6 (SD 1.6). Prevalence of loneliness measured on CES-D was 27.9% in April 2020, compared to 13.2% during the last Rotterdam Study follow-up round. Loneliness prevalence was higher among women (35.0%), single participants (49.1%) and those living alone (55.1%). Participants felt connected to their neighbors, family and friends (89.7%) and to a lesser extent to all Dutch people (65.4%).

Conclusion: Community-dwelling older adults in Rotterdam experienced more loneliness in the first weeks of the COVID-19 pandemic in 2020, but also reported feeling socially connected to their loved ones and community. Using longitudinal analyses, we will next explore how brain structure affected social health during the first wave of the pandemic.

Social inclusion, health services and people with young-onset dementia, a path still to develop
Rabih Chattat, Ilaria Chirico, Alessandro Pappadà, Giovanni Ottoboni
Department of Psychology, University of Bologna, Italy

Background: The capacity to record and act proactively towards the needs of people with dementia is not equally distributed across Europe. In particular, when young people receive the diagnosis of dementia, social participation and social roles require special attention. We explore health services' recognition of the need for social participation and subsequent actions.

Methods: People with dementia, formal and informal caregivers (health service workers) from Italy, were interviewed about their experiences with people with young-onset dementia. The transcripts were re-analysed focussing on social inclusion and using qualitative content analysis.

Results: Participants were twenty-two people living with young-onset dementia, fifty-one informal carers and thirty-one formal caregivers. Four themes emerged: (1) impact; (2) coping; (3) service internal functioning; (4) service networking.

The affected people's young age was crucial as it increased the discrepancy between their sentiments of usefulness and inclusion in the society and the attitude of health services and caregivers. Maladaptive coping strategies were put in place as reactions to the diagnosis and in response to the absence of either structures or plans capable of re-uptaking and empowering these people.

Conclusions: Young-onset dementia represents a dramatic turn-of-the-screw in all the people impacted by this diagnosis. One of the needs people living with young-onset diagnosis report relates to social inclusion and maintaining a social role. Considering social needs and enhancing interpersonal interactions and mutual recognition can positively impact individuals' quality of life as it can buffer their limitations and enhance their capabilities.

302 - The global impact of the COVID-19 pandemic on those living with and caring for someone with dementia

Clarissa Giebel, Marta Lenart, Ilaria Chirico, Katarzyna M. Lion

We are presenting four abstracts here for four inter-related talks into the global impact of the pandemic on dementia. Specifically, we will be presenting four talks from our international consortium (UK, India, Italy, Poland, Australia) highlighting how dementia has increased as a global public health concern during the pandemic with similar and different impacts across countries; the mental health impact on people with dementia and carers; the difficulties in using technology for social contact in dementia; as well as the impact on carers with relatives residing in institutional long-term care settings. Public involvement has been a key element of this study. The symposium will be hosted by Dr Clarissa Giebel, the PI of this international 5-country study, and talks will be presented by Dr Giebel, Marta Lenart, Dr Ilaria Chirico, and Dr Katarzyna Lion.

Talk 1 Abstract

Amplifying dementia as a global public health problem: A cross-country comparison of the impact of COVID-19 pandemic

Clarissa Giebel[1,2*], Katarzyna Lion[3], Maria Mackowiak[4], Rabih Chattat[5], PN Suresh Kumar[6], Monica Cations[7], Mark Gabbay[1,2], Wendy Moyle[3], Giovanni Ottoboni[5], Joanna Rymaszewska[4], Adrianna Senczyszyn[4], Dorota Szczesniak[4], Hilary Tetlow[2], Elzbieta Trypka[4], Marco Valente[5], Ilaria Chirico[5]

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Background: Emerging evidence describes impacts of the COVID-19 pandemic upon people living with dementia and their informal carers, however without evidence-based global comparisons to date. The aim of this international study was to explore and compare the impact of COVID-19 and associated public health restrictions on the lives of people living with dementia and informal carers and access to dementia care across five countries.

Methods: People with dementia and informal carers from the UK, Australia, Italy, India, and Poland participated in remote semi-structured interviews. Participants were asked about their experiences of the pandemic and how restrictions have impacted on their lives and care. Transcripts were analysed by researchers in each country using thematic analysis, then combined across sites.

Results: Fifteen people living with dementia and 111 informal carers participated across the five countries. Four themes emerged: (1) Limited access and support; (2) Technology and issues accessing remote support; (3) Emotional impact; and (4) Decline of cognitive and physical health reported by carers. Whilst variations were noted, the pandemic has indirectly affected people with dementia and carers across all five countries. The pandemic removed access to social support services and thus increased carer burden. Remote services were not always provided and were limited in benefit and usability for those with dementia. Carers frequently described noticeably deteriorating cognitive and physical health in people with dementia.

Conclusions: The pandemic has amplified dementia as a global public health problem, and both people affected by the condition ad their carers need support to better access vital support services to live well. This is even more important with emerging new waves and new variants of the virus affecting different countries, in our globally connected world.

Talk 2 Abstract
Social health of people with dementia during the SARS-CoV-2 pandemic

Marta Lenart[1], Maria Mackowiak[1], Adrianna Senczyszyn[1], Dorota Szczesniak[1], Clarissa Giebel[2,3], Rabih Chattat[4], Mark Gabbay[2,3], Katarzyna Lion[5], Wendy Moyle[5], Giovanni Ottoboni[4], Joanna Rymaszewska[1], Hilary Tetlow[3], Elzbieta Trypka[1], Marco Valente[4], Ilaria Chirico[4], Monica Cations[6]

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Background: Limited access to medical and social services during the coronavirus outbreak has contributed to the exclusion of vulnerable populations, such as people with dementia and older adults. These limitations and the resulting social isolation have highlighted the importance of social relationships and their relationship to the mental health of these people. In the context of dementia, 'social health' (SH) can be defined as the role of social abilities for achieving a dynamic balance between opportunities and limitations. The concept encompasses the capacity and independency of an individual to participate in social activities alongside the influences of the surrounding social network.

Methods: Using a qualitative and quantitative approach, we will present social health and its determinants of people with dementia related to social care service closures and self-isolation during the SARS-CoV-2 pandemic. We present an analysis of the survey data from the cross-country population-based study and the semi-structured telephone interviews with people with and without dementia from Poland, UK, Australia and Italy aged 65 and over.

Results: Measuring the Social Health Index in relation to experiencing self-isolation and changes in the use of services before and during the pandemic among the people with dementia, allow us to identify the level of SH and its determinants. Also, the qualitative results revealed the indirect consequences of

the pandemic-related restrictions in the access to social care service and social isolation. Reduction of social support was significantly related to deficits in social health and well-being.

Conclusions: Our results highlight the emerging impact of health the current global epidemiological situation upon social health, with a particular focus on those affected by social disadvantage and isolation.

Talk 3 Abstract
The use of technology by people with dementia and informal carers during COVID-19: a cross-country comparison

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Background: Social distancing rules and the closure of services associated with the COVID-19 pandemic have strongly impacted the physical and mental health of people with dementia. Digital technologies can represent an effective means to compensate for the distress associated with social distancing rules and the decreased use of in-person services. More specifically, technologies such as smartphones, tablets, and smart home systems can minimize the negative effects of social distancing and isolation, and the pressure on health and care systems. Indeed, they can provide a continuity of care and social connectedness, while decreasing exposure to risk. However, barriers such as digital literacy and lower income households can impede the access and use of digital technologies. The aim of this international study was to compare the use of technology by people with dementia from different care settings, and their informal carers across four countries (Italy, UK, Australia, and Poland).

Methods: People with dementia and informal carers were invited to participate in semi-structured interviews. Verbatim transcripts were analysed by researchers in each country using inductive thematic analysis.

Results: A total of 141 people with dementia and carers (47 in Italy; 50 in the UK; 18 in Australia; 26 in Poland) were interviewed. The analysis identified three overarching themes: 1) different uses of technology (three subthemes); 2) benefits of technology (three subthemes); 3) limitations of technology (three subthemes). Results show that calls, video calls, and group-chats were effectively used across countries to guarantee the continuity of relationships with professionals, families, and small groups of peers. Telemedicine was used with varying levels of satisfaction. Furthermore, the benefits experienced by carers exceeded those for people with dementia. Similar barriers were reported across countries, and were strictly associated with dementia deficits, low level digital literacy, and the need for carer's supervision.

Conclusions: These international findings highlight the importance to maximise the benefits related to the use of technology according to people with dementia's impairment and care context. Moreover, it should be complementary to in-person care which should be provided, at least to some extent, even during pandemic times.

Talk 4 Abstract
A cross-country comparison of family carers experiences with residential aged care facilities during the COVID-19 pandemic

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Background: The number of research projects into residential aged care (RAC) during the COVID-19 pandemic is increasing, however there are limited data on the cross-country comparison of experiences residents living with dementia and their families. Our study aimed to 1) give an overview of the RAC restrictions and changes (visiting policy, governmental & health authorities' advice, service delivery) implemented during the pandemic in Australia, Italy and the UK and 2) and their impact on people with dementia in RAC facilities and their families.

Methods: A total of 56 informal family carers of people with dementia residing in RAC took part in semi-structured interviews over the telephone or via Skype in Australia (n=6), Italy (n=25) and the UK (n=26) between July 2020 and March 2021. The interviews were recorded and translated verbatim. Transcripts were analysed by researchers in each country using thematic analysis, then combined across sites.

Results: Inductive thematic analysis identified four overarching themes: 1) Adaptations implemented in RAC facilities due to the COVID-19 pandemic in Australia, Italy and the UK; 2) means of communication between RAC facility personnel, people with dementia living in RAC and family members; 3) impact of the implemented restrictions and changes in care provision due to the COVID-19 pandemic on people with dementia in RAC facilities and 4) impact of the implemented restrictions and changes in care provision due to the COVID-19 pandemic on families of people with dementia in RAC facilities. While differences between countries and facilities were identified, the restrictions and changes within the residential care system impacted families' well-being, increased their worries about care quality and safety of people with dementia. The consequences of a lack or modified services for people with dementia included noticeable physical and mental health changes. Although the majority of the facilities implemented some form of video-communication between families and residents, those solutions were unable to replace face-to-face contact.

Conclusions: These findings demonstrate the need for implementing safe solutions which might facilitate more frequent in-person contact between families and residents with dementia preventing consequences in mental and physical health in both groups.

304 - Mental healthcare services and advocacy for older people amidst the COVID crisis: Voices from South Asia

(Jointly organized by World Psychiatric Association – Indian Psychiatric Society – SAARC Psychiatric Federation – Asian Federation of Psychiatric Associations)

Abstract:

Asia has some of the fastest developing economies and largest conglomerations of populations in the world. One such geographically unique region is South Asia, which accounts for nearly 25% of the global population and one-fifth of the psychiatric morbidity worldwide. This region is also ageing rapidly compared to rest of the world due to modifications in healthcare facilities, hygiene, and lifestyle as well as improved sanitation and infection control. Besides, some of the South Asian countries have also been worst-hit by the COVID-19 pandemic which has led to an exaggerated psychosocial crisis among their older people. Many of these nations face issues with community psychiatric care, trained manpower, socio-economic resources, legislation catering to psychological care and health inequalities. However, recent years have also witnessed paradigm shift in mental health policies, infrastructure and technology among these nations. Climate changes, migration, displacement and ecological characteristics further make South Asia unique in mental health needs and challenges.

With this background, leaders in the field of psychogeriatric care from some of the South Asian nations come together to discuss and highlight upcoming strategies for mental health advocacy and service delivery among older people in these regions. Mutual collaboration and cross-country research are globally called upon.

Panelists:
1. *Dr. Gautam Saha* (President, Indian Psychiatric Society) drgsaha@yahoo.co.in
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Moderator:
Dr. Debanjan Banerjee (Old Age Psychiatrist, NIMHANS, Bangalore; Member, IPA Public Awareness and Advocacy Committee) dr.Djan88@gmail.com

OnDemand Free/Oral Communications

400 - Environmental stimuli in nursing homes during the COVID-19 pandemic: Lessons learned to improve the management of challenging behavior
Inge Knippenberg – Ruslan Leontjevas – Johanna Nijsten – Christian Bakker – Raymond Koopmans - Debby Gerritsen

Challenging behavior is common in nursing home residents, especially in those with dementia. Our previous study suggested that a decrease in environmental stimuli (i.e., events that take place around residents but are not specifically directed at them) in nursing homes due to restrictions during the COVID-19 pandemic, may affect residents differently. To improve future care, the experience of

practitioners can be used to learn about the effects of environmental stimuli on challenging behavior in specific resident groups during the pandemic.

From the perspective of practitioners, this study aimed to learn from successful initiatives and observed effects of decreased environmental stimuli on challenging behavior in residents during anti-pandemic measures.

An online survey among 199 Dutch nursing home practitioners was conducted from November 2020 to January 2021. Practitioners were asked about alleged effects of diminished environmental stimuli in residents with different types of challenging behavior (i.e., psychotic, depressed, anxious, agitated, apathetic) and with mild vs. advanced or without dementia. Also, their opinion about strategies to limit environmental stimuli was explored.

Residents with advanced dementia and those with psychotic and agitated behavior seemed to benefit from diminished environmental stimuli. In contrast, residents without dementia and those with depressive and apathetic behavior seemed to be negatively affected by decreased environmental stimuli. Practitioners indicated that they would like to preserve various strategies to limit environmental stimuli in the future such as reducing the use of corridors adjacent to residents' rooms. Also, they planned to use adjustments and new initiatives regarding organized activities such as an increased use of small-scale and person-oriented activities. Opinions were divided on receiving visitors in the living room and on imposing visiting hours. In open-ended questions, other initiatives were mentioned that can be useful in nursing home care.

Various strategies and initiatives in nursing homes during the pandemic seem promising to meet individual needs. While many residents may be negatively affected by restrictions during the pandemic, specific resident groups may benefit from a decrease in environmental stimuli. These findings underline the importance of a good balance between stimuli and rest in the nursing home, tailored to an individual resident.

401 – Cannabis and Older Adults
Kiran Rabheru, MD, David K. Conn, MBBCh, Claire Checkland, Daria Parsons, MSc

The National Cannabis Survey results indicates that cannabis consumption among older adults has been accelerating at a much faster pace than other age groups in Canada. Internationally, an increasing number of countries and U.S. states have also legalized medical and non-medical cannabis.

More than 1500 physicians, nurse practitioners, other healthcare providers, healthcare students, older adults and caregivers of older adults responded to a needs assessment survey on Cannabis and Older Adults distributed by the Canadian Coalition for Seniors' Mental Health (CCSMH) in the fall of 2020. Responses showed that 89% of physicians and nurse practitioners and 76% of other healthcare providers are aware of older patients in their practice using cannabis. Despite this fact, only 39% of physicians and nurse practitioners and 26% of other healthcare providers feel strongly or very strongly that they have sufficient knowledge and expertise to address older patients' and their caregivers' questions about cannabis.

Older adults who responded to the survey indicated that their most common reasons for using cannabis were pain, sleep and anxiety. Fifty-one percent responded that they had talked to their doctor or healthcare provider about cannabis but 41% of those older adults stated that their doctor or healthcare provider were unable to answer their questions. Older adults reported they access information on cannabis from the internet (45%), physicians (40%), friends and family (34%), cannabis stores and clinics

(28%), the media (24%), and other healthcare providers (16%). Fifty-four percent of older adult respondents who use cannabis do so with a prescription or medical authorization from their physician / nurse practitioner for medical / therapeutic reasons. One quarter of respondents indicated they use cannabis for non-medical reasons (for recreational use).

Although there is a reported gap in knowledge regarding cannabis and older adults, physicians, nurse practitioners, other healthcare providers and healthcare students all reported they are eager to learn more about how to talk with patients, how to authorize and prescribe cannabis appropriately, how to mitigate risks and assess for cannabis use disorder in older adults. CCSMH will be launching a physician-accredited e-learning course on Cannabis and Older Adults in January 2022.

402 - An audit of Lithium Prescribing Practices in an Old Age PsychiatryService highlighting renal impairment in this cohort.

Authors: L.Valentine, J.Cannon, S.Marmion, M.Corcoran, M.Cryan, G.Mc Carthy, C.Dolan.

Abstract

Aims:
To compare Lithium prescribing practices in a Psychiatry of Old Age (POA) Service in the North-West ofIreland among adults aged 65 years and over with best practice guidelines.

Methods:
Review of the literature informed development of audit standards for Lithium prescribing. These included National Institute for Clinical Excellent (NICE) 2014 guidelines, The British National Formulary(2019) and Maudsley Prescribing Guidelines (2018). Data was collected retrospectively, using an audit-specific data collection tool, from clinical files of POA team caseload, aged 65 years or more and prescribed Lithium over the past year.

Results:
At the time of audit in February 2020, 18 patients were prescribed lithium, 67% female, average age 74.6 years. Of those prescribed Lithium; 50% (n=9) had depression, 44% (n=8) had bipolar affective disorder (BPAD) and 6% (n=1) schizoaffective disorder.
78% (n= 14) of patients met the NICE standard of 3-monthly lithium level. Lithium levels were checkedon average 4.5 times in past year, average lithium level was 0.61mmol/L across the group and 39% (n
=7) had lithium level within recommended therapeutic range (0.6-0.8mmol/L).
83% of patients (n=15) met the NICE standards of 3 monthly renal tests. Taking into consideration mostrecent blood test results, 100% (n=18) had abnormal renal function.
Half (n=9) were initiated on lithium by POA service and of these, 56% (n=5) had documented renal impairment prior to initiation. Of patients on long term lithium at time of referral (n=9), almost half (n=4) had a documented history of lithium toxicity.

Conclusions:

The results of this audit highlight room for improvement in lithium monitoring of older adults attending POA service. Furthermore, all patients prescribed lithium had impaired renal function. This is an important finding given the associations between those admitted to hospital with COVID-19 and co-morbid kidney disease and increased risk of inpatient death.

Our findings highlight the need for three monthly renal function monitoring in elderly prescribed lithiumgiven the additive adverse effects of increasing age and lithium on the kidney. Close working with specialised renal services to provide timely advice on renal management for those with renal impairment prescribed lithium is important to minimise adverse patient outcomes.

403 - Episodes of lucidity (paradoxical lucidity): A survey of family caregivers of persons with dementia

Presenter: Joan M. Griffin, Ph.D.
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Keywords: advanced dementia, end of life, lucid intervals, caregivers

Topic: Dementia – Others

Abstract:

People with late-stage Alzheimer's disease and related dementias (ADRD) who are assumed to have lost coherent cognitive capacity may exhibit unexpected episodes of spontaneous, meaningful, and relevant communication or behavior. Most reports of paradoxical lucidity or "episodes of lucidity" (EL) are anecdotal or case studies. Given the transient nature and lack of scientific explanation of the phenomenon, EL is under-investigated and poorly understood.

To develop an operational definition of and typologies for EL, we conducted a pilot study of former and current family caregivers from UsAgainstAlzheimer's A-LIST® (N = 480). Over sixty percent of caregivers (n = 294, 61%) reported witnessing at least one EL with their care recipient over the course of dementia. Most episodes happened in late stages of dementia (71%). Only 10% happened within 7 days before death. The majority of episodes (71%) lasted <30 minutes. About half the episodes were characterized by uncharacteristic speech and communication. Caregivers perceived these experiences positively (*M* = 4.1; range = 1–5), but also expressed desire to know why/when EL occurs and how to respond to it.

We plan to use these data to refine definitions and typologies to incorporate into a prospective, demographically diverse survey to family caregivers to assess predictors of EL and linking EL to caregiver well-being and bereavement response. Precise and robust operationalizations of EL will allow future research to assess if EL has different effects on ADRD prognosis or alters how family members understand, manage and adapt to a PLWD's dementia progression.

404 - Factors associated with diagnostic delay in younger-onset dementia iagnostic delay in younger-onset dementia

Samantha M. Loi, Anita M. Goh, DPsych, Dhamidhu Eratne, Ramon Mocellin, Sarah Farrand, Andrew Evans, Charles Malpas, Wendy Kelso, Mark Walterfang, MBBS PhD FRANZCP, Dennis Velakoulis, MBBS,

Background: Younger-onset dementia (YOD) is a dementia of which symptom onset occurs at 65 years or less. There are approximately 27000 people in Australia with a YOD and the causes can range from Alzheimer's dementia (AD), frontotemporal dementia (FTD), metabolic and genetic disorders. It is crucial to obtain a definitive diagnosis as soon as possible in order for appropriate treatment to take place and future planning. Previous research has reported 4-5 years to get a diagnosis (Draper et al. 2016) and factors associated with delay include younger age (van Vliet et al. 2013) and psychiatric comorbidity (Draper et al. 2016). We report on our experience of diagnostic delay.

Methods: This was a retrospective file review of 10 years of inpatients from Neuropsychiatry, Royal Melbourne Hospital, Australia. Neuropsychiatry is a tertiar service which provides assessment of people with cognitive, psychiatric, neurological and behavioural symptoms. Factors such as age of onset, number of services/specialists seen were extracted and analysed using multivariate regression.

Results: Of the 306 individual patients who had a YOD, these were grouped into the major dementia groups (such as AD, FTD, Huntington's disease, vascular dementia, alcohol-related dementia). The most commonly occurring dementia was AD (24.2%), followed by FTD (23%). There was an average of 3.7 years (SD=2.6), range 0.5-15 years, of delay to diagnosis. Cognitive impairment, as measured using the Neuropsychiatry Unit Cognitive Assessment (NUCOG) was moderate, with a mean score of 68.9 (SD=17.9). Within the groups of dementia, patients with Niemann-Pick type C (NPC) had the longest delay to diagnosis $F_{(11,272)}=3.677$, $p<0.0001$, with 6.3 years delay. Age of symptom onset and number of specialists/services seen were the significant predictors of delay to diagnosis $F_{(7, 212)}=3.975$, $p<0.001$, $R^2 11.6$.

Discussion and conclusions: This was an eclectic group of people with YOD. The results of regression suggests that there are other factors which contribute to the delay, which are not just demographic related. Rarer disorders, such as NPC which present at an early age, and present with symptoms that are not cognitive in nature, can contribute to diagnostic delay.

405 - Emotional Resilience of Older Adults During COVID-19: A Systematic Review of Studies of Stress and Well-Being

Evelina Sterina BA[1], Adriana P. Hermida MD[2], Danielle J. Gerberi MLIS[3], Maria I. Lapid MD[4]

Objectives: To examine post-traumatic stress, depression, anxiety, and well-being in older adults under quarantine in the context of epidemics.

Methods: A systematic review of CINAHL, Ovid EBM Reviews, Ovid Embase, Ovid Medline, Ovid PsycINFO, Scopus, and Web of Science databases from 2000-2020 was conducted. Keywords included coronavirus, epidemic, quarantine, stress, mental health, and similar terms. Included studies enrolled

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participants under quarantine, quantitatively measured of mental health or psychological well-being, and characterized outcomes by age.

Results: Of 894 initial results, 20 studies met criteria and were included in the analysis. Studies comprise a total of 106,553 participants from eight countries, age range 6-100, involved two epidemics (COVID-19, SARS), and used 27 tools used to assess psychological responses to quarantine. The majority (70%) of the studies utilized recruited participants through online surveys, utilizing open web and snowball recruitment. Of the 20 studies, one found greater distress in older adults relative to younger adults on a COVID-19 distress scale, one study found no significant differences, and 18 studies found lower negative outcomes in older participants in at least one metric.

Conclusions: Older adults in this review generally have lower stress and less negative emotions under quarantine than younger adults. It is unknown how this compares to the pre-pandemic state. More representative and longitudinal studies are needed to better measure the impact of quarantine on the mental health of older adults.

Clinical Implications:
As existing scales may not capture the full extent of pandemic's psychological effects on older adults, clinicians must be vigilant in monitoring older adults' mental health in quarantine.

Note:
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406 - Supports received by the families of people with neurodegenerative disease: a quantitative and qualitative approach.
Authors: Alba Aza, María G. Vela, Eva González, Isabel Vicario-Molina, María Begoña Orgaz y Marta Badia

Keywords. Neurodegenerative disease; Families; Focus Groups; FQoLS-ND; Services.

Introduction: When neurodegenerative disease (ND) is diagnosed, the family's quality of life (FQoL) changes drastically. Within the concept of FQoL, the supports they receive from others at the community level and from services is one of the most important issues. Nonetheless, studies available using a mixed-methods approach are still limited. Consequently, the objective was to study the domains of support from services and support from others (emotional and practical), through the application of a quantitative instrument and the conduction of focus groups.

Method: Three hundred relatives of people with ND, recruited from Regional Health Management of Castille and 14 Leon (Spain) completed the instrument FQOLS–ND, a specific scale for measuring quality of life in families caring for people with a ND. The mean age of the sample is 62.4 years and the majority are females (70%). In addition, a focus group was carried out with 10 family members (70% females, mean age= 61.6) aiming at the analysis of the quality of life domains.

Results: The domains support of others (emotional and practical) and support from services achieved low quantitative levels specially in terms of achievement ($M_{emotional}$=3.30; $SD_{emotional}$= 1.21; $M_{practical}$= 3.09, $SD_{practical}$= 1.26; $M_{services}$= 2.83; $SD_{services}$= 1.02;). In the focus group, the main topics mentioned as negatively affecting the FQoL were social isolation, access and correct follow-up in specialized care

services, lack of information on the diagnosis and progression of ND and on the needs of the person, and lack of empathy of professionals and others.

Conclusions: ND negatively and significantly affects the family as a whole. Despite this, the emotional and practical support they receive from both other community members and professionals and services is still very insufficient. Therefore, it is important to raise awareness of the needs of this population and to carry out transformations in the attention provided.

407 - Living through the pandemic as an older person: Long-term psychological impacts in low- and middle-income countries

Clarissa Giebel, Bwire Ivan, Maria Isabel Zuluaga, Suresh Kumar, Mark Gabbay, Gabriel Saldarriaga, Isaac Ddumba

Background: The pandemic has put a huge strain on people's mental health, with varying restrictions affecting people's lives. Little is known how the pandemic affects older adults' mental health, particularly those living in low- and middle-income countries (LMICs) where restrictions are affecting people's access to basic necessities. Thus, the aim of this 3-country study was to understand the long-term impacts of the pandemic on the mental well-being of older adults with and without dementia in LMICs.

Methods: We are collecting 30 baseline and 15 follow-up interviews with older adults (aged 60+), people with dementia, and family carers in Colombia, India, and Uganda, as well as a baseline and follow-up focus group with health and social are professionals in each country. Interviews are conducted remotely over the phone due to pandemic restrictions, with data collection taking place between March and July 2021. Transcripts are translated into English before being analysed using thematic analysis.

Results: To date, we have completed close to 90 baseline interviews and 3 focus groups with health and social care professionals. Analysis is ongoing, but findings are capturing the detrimental second wave in India and follow-up interviews will capture the longitudinal impacts on mental health.

Conclusions: Whilst vaccines are starting to be rolled out in LMICs, albeit at different rates, the virus will likely take much longer to be somewhat managed in LMICs. This leaves more room for people's physical as well as mental health to be impacted by the restrictions, and with often limited mental health service coverage, it is all the more important o understand the impact of the pandemic on older people's mental health.

408 - Muscle strength is an important predictor for limitations in basic activities of daily living among people with severe disability

Jinni Wang, Jialan Wu, Lizhu Liang, Rui Ye and Xiaoyan Liao*

Objective: This study aimed to identify predictors of limitations in basic activities of daily living (BADL) among people with severe disabilities.

Methods: 4075 long-term care beneficiaries with severe disabilities in Guangzhou, China, were included during July 2018 and March 2019. BADL was assessed using the Barthel index (BI). Muscle strength was measured by using the Lovett Rating Scale. Age, gender, comorbidities, and muscle strengths were

collected as independent variables. Chi-square Automatic Interaction Detector (CHAID) method was used to examine associations between independent variables and item scores of the BI.

Results: Muscle strength and history of stroke were parent node and child node for most of BADL limitations, respectively. Upper limb muscle strength (≤ 3) was a major predictor for dependence in feeding, grooming, toileting, dressing, and transfer, while lower limb muscle strength (≤ 3) was a major predictor for limitation in mobility.

Conclusions: Muscle strength was the strongest predictor of BADLs among people with severe disability. Muscle strength grading may be optimal for designing supporting strategies for people with severe disabilities.

Keywords: Disability, Basic activities of daily living, Long-term care, CHAID analysis

409 - Psychometric features of Comprehensive Geriatric Assessments (CGAs) in long-term and community care settings: A Systematic Review

Author List

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Background:

Comprehensive Geriatric Assessments (CGAs) incorporate the key principles of integrated care delivery, which is regarded as the most effective approach of care provisioning to face challenges of dementia care, such as uncoordinated care, risk of hospitalizations, care planning and unmet needs. For this reason, implementing CGAs in care practice might be highly relevant, however, to do so, we must consider their psychometric characteristics.

Research Objective:

To provide insight into the content and the reliability and validity of CGAs used in long-term care and home care settings.

Method:

A search strategy was conducted in PubMed, CINAHL, and Web of Science, targeting studies that have focused on the validity and reliability of available CGAs for long-term and home care settings. Studies in English and Spanish and published up to July 13, 2021, were considered.

Preliminary results of the ongoing study:

A total of 72 studies reporting on the validity/reliability of 13 different CGAs were identified. For long-term care facilities, five CGAs were reported; for home care, eight assessment tools were targeted. Most of the CGAs covered a wide range of domains, such as Physical Health, Functional, Mental Health, and Social Status. Evidence for good to excellent validity and reliability was reported for various instruments.

Conclusion: Resident Assessment Instrument-Minimum Data Set (RAI-MDS) and subsequent updated instruments reported strong evidence of good to excellent validity and reliability for multiple countries. For this reason, interRAI LTCF and interRAI HC are recommended to be use for long-term and home care

facilities, as they are the latest versions of the RAI-MDS**.**

410 - A Systematic Review on Digital Health Interventions (DHIs) supporting the administration of Comprehensive Geriatric Assessments (CGAs) use in long-term and home care settings

Author List

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Background:

Health systems are in the need for novel approaches to tackle the challenges from the demographic transition to ageing populations. An effective approach to face these challenges is integrated care delivery. Implementing Comprehensive Geriatric Assessments (CGAs) in Health Ageing might be highly relevant to incorporate this approach. However, this implementation should be supported by Digital Health Interventions (DHIs) in order to reach their full capacity.

Research Objective:

To identify the DHIs facilitating the administration of CGAs used in long-term care and home care settings and provide an insight on their characteristics and stage of maturity and evaluation.

Method:

A search strategy was conducted in PubMed, CINAHL, and Web of Science, targeting studies evaluating the DHIs facilitating the administration of CGAs used in long-term care and home care settings. Studies in English and Spanish and published up to July 26, 2021 were considered.

Preliminary results of the ongoing study:

A total of four papers describing three digital platforms supporting the administration of the CGAs were identified. Information on implementation reported less completion of some sections affecting the CGAs outcomes, assessments mostly being the responsibility of nurses, and missing data related with less quality of care. Limitations and barriers regarding their usability and feasibility were also identified.

Conclusion:

The inclusion of safe data storage, automatic notifications for assessment completion, automatic calculation of final outcomes, and facilitation of multidisciplinary assessments, were identified as key features to enhance the implementation of digital platforms facilitating the administration of CGAs. Nonetheless, information regarding technical features and hardware information of the digital platforms was scarce.

411 - Palliative Care in Dutch Green Care Farms and Innovative Small-Scale Living Facilities

Authors: Brittany DeGraves, Judith Meijers, Carole Estabrooks, Hilde Verbeek

Background: Dutch Green Care Farms and innovative small-scale facilities for residents with dementia focus on promoting resident abilities and engaging residents in activities to maintain resident quality of life up until death. Palliative care approaches are needed in these innovative facilities to maintain quality of life and quality of care. To our knowledge, there are currently no literature reviews discussing palliative care in these facilities or exploring palliative care in Green Care Farms in the Netherlands.

Research Objectives: To identify current palliative care approaches at innovative small-scale facilities and Dutch Green Care Farms for residents with dementia.

Methods: This two-part study includes a scoping review focused on identifying research regarding palliative care approaches in innovative small-scale facilities. Thematic analysis based on van der Steen et al.'s (2014) domains for palliative care in dementia were used to analyze the final papers included in the review. The second part of the study included qualitative semi-structured interviews of six managers and two front-line caregivers at five care farms in the Netherlands in 2019 focused on palliative care approaches in their facilities.

Preliminary Results of Ongoing Study: Eight papers were included in our final scoping review. Most facilities in these papers focused on maximizing comfort and the residents remaining abilities at end-of-life while providing person and family-centred care. Similar findings were seen in the preliminary results of the interviews, which indicate that all farms use palliative care approaches while maximizing physical and psychological functioning and engagement in activities. Care farms also reported promoting family involvement, preventing hospitalizations, and ensuring family and resident involvement in decision-making at the end-of-life.

Conclusion: By providing palliative care approaches, innovative facilities provide a home for life and improved quality of life for residents up until death. Innovative small-scale facilities including green care farms prioritize resident autonomy and choice, minimizing discomfort and family-centred care at the end-of-life. Additional research surrounding barriers to palliative care, quality of end-of-life care, and comparisons of innovative facilities to traditional long-term care homes are needed to have a more comprehensive picture of palliative care in these innovative facilities.

412 - Empowerment for people living with dementia: an integrative literature review

Charlotte T.M. Van Corven, Annemiek Bielderman, Mandy Wijnen, Ruslan Leontjevas, Peter LBJ Lucassen, Maud JL Graff, Debby L. Gerritsen, PhD

Introduction: Although the concept of empowerment seems useful for good care and support for people living with dementia, there is a lack of understanding as to how to define this concept. Therefore, insight is needed in what empowerment means for people living with dementia.

Methods: We performed an integrative literature review (PubMed, CINAHL, PsychINFO), including articles that addressed empowerment for people living with dementia in their title or abstract. Using qualitative data analysis software ATLAS.ti, we applied open codes to describe all relevant aspects of included articles. Common themes and categories were identified using inductive reasoning and constant comparison.

Results: Sixty-nine articles were included. We identified four themes: (1) description of the state of being empowered, (2) the process of empowerment, (3) contribution of the environment to the empowerment process, and (4) effects on other variables. We combined these results with the conceptual framework of our previous qualitative study on the definition of empowerment for people

living with dementia based on stakeholders' perspectives into a revised conceptual framework. Subsequently, the combined information of both studies was visualized in a revised conceptual framework.

Conclusion: This literature review provides more details as to the role of the environment for empowerment of people living with dementia and suggests that empowerment can be considered a dynamic process, taking place through interaction between the person living with dementia and their environment. Our revised conceptual framework of empowerment can serve as a basis for future studies on empowerment for people living with dementia, and to support (in)formal caregivers in the empowerment process.

413 - Delivering tailored, holistic support to people living with dementia and their families: a new primary care intervention

Greta Brunskill, Claire Bamford, Jane Wilcock, Alison Wheatley, Louise Robinson on behalf of the PriDem team

Background: Currently, post-diagnostic dementia care and support in England and Wales is highly variable, and often insufficient in meeting the needs of people living with dementia and their families. Objective: To develop and deliver a new primary care based intervention to enable people living with dementia and their carers to live as well as possible from the point of diagnosis to end of life.

Method: We conducted a survey and interviews with managers and commissioners of dementia services, and in-depth qualitative studies of six different existing service models to understand current post-diagnostic support in England and Wales. We also reviewed relevant literature on the management of long-term conditions and models of post-diagnostic support. Using the findings, a new intervention has been produced through a co-development process involving stakeholder task groups, our patient and public involvement group (the Dementia Care Community), and the multidisciplinary programme management board.

Results: Our findings highlighted key priorities from the perspective of people living with dementia, their carers, and professionals which focus on the need for personalised, proactive and holistic care. We also identified a number of challenges in the provision of good quality post-diagnostic support, and examples of how these could be overcome to deliver best practice. Importantly, we found that no one service model delivered all aspects of post-diagnostic dementia support well.

The new intervention will focus on three main areas: developing systems for delivering evidence-based support; delivering tailored care and support; and building capacity and capability. A clinical dementia expert, a specialist nurse or similar professional with dementia expertise, will be based in primary care to lead and facilitate change across these three interlinked areas to develop systems and services that meet the needs of all older people living with dementia.

Conclusion: Our new intervention will now be tested in practice in a feasibility and implementation study.

414 - Supporting staff delivering person-centered care to people with dementia in Dutch nursing homes

Author list
Henriëtte van der Roest, Milan van der Kuil, Anouk Overbeek, Egbert Hartstra

Background
Positive evidence has been found for person-centered care provisioning (PCC), the level of person-centeredness of care is positively associated with residents' quality of life, quality of care an wellbeing.

When providing PCC, care and support are provided in line with the needs, preferences and capacities of people with dementia. PCC is seen as the golden standard for dementia care. However, in nursing homes, needs and preferences of people with dementia are not always obvious, due to the relatively high levels of cognitive impairment. This, and amongst others time constraints might hinder high PCC by care professionals. Limited evidence show that certain organizational and environmental conditions, such as satisfactory leadership, interdisciplinary collaboration, and continuing education, lead to higher PCC. In order to facilitate care professionals as much as possible in providing PCC, more insight is desirable.

Objective
This study aims to provide more insight into the modifiable factors that contribute to PCC for people with dementia in Dutch nursing homes.

Methods
A cross-sectional design was applied. Data were collected during the fifth assessment of the Living Arrangements for people with Dementia (LAD)-study from April 2019 until February 2020. Care professionals working in psychogeriatric units in nursing homes filled in an online survey. Organizational characteristics of participating nursing homes were inventoried.
The level of PCC was assessed with the Dutch version of the 'Person-centred care questionnaire' (PCCq). Modifiable factors potentially impacting the level of provided PCC with regard to staff characteristics (e.g. autonomy, education), organizational features (e.g. size, involvement of family in care), and culture (e.g. learning climate) were included in multiple linear modelling.

Preliminary results
In total 58 nursing home facilities were included in the study, and 814 care professionals completed the survey. Average PCCq score was 3.2 (SD = 0.4; range 0 to 4, higher scores indicating higher PCC).

Conclusion
Factors related to staff, and organizational features and culture, that contribute to PPC will be presented. The outcomes of the study will provide input for the optimal organization of dementia care, in order to support care professionals working in nursing homes to provide PCC.

415 - Promoting empowerment for nursing homes residents with dementia: a feasibility study of the SPAN+ program

Charlotte T.M. Van Corven, Annemiek Bielderman, Mandy Wijnen, Ruslan Leontjevas, Peter LBJ Lucassen, Maud JL Graff, Debby L. Gerritsen, PhD

Introduction: For feeling empowered, a sense of identity, usefulness, control, and self-worth is important for people living with dementia. We developed an empowerment intervention called the SPAN+ program to promote empowerment for nursing home residents with dementia. The aim of this study is to evaluate the feasibility of the SPAN+ program for these residents.

Methods: Healthcare professionals of two dementia special care units of one care organization worked with the SPAN+ intervention, which lasted for four months (September 2020 – December 2020). During the intervention, they reflected together on the four themes of empowerment for each resident, and set specific goals. Subsequently, they discussed and adjusted these goals with family caregivers and the person living with dementia (when possible). Furthermore, their personal professional development was targeted by specific exercises around the themes of empowerment.

We used the method of Bowen and colleagues (2009) to evaluate the feasibility of the SPAN+program in terms of acceptability, demand, implementation, practicality, integration, and possible efficacy. Qualitative data was collected through interviews and a focus group discussion with participating healthcare professionals. Quantitative data was collected through standardized questionnaires filled in by healthcare professionals and family caregivers at baseline and at four- month follow-up.

Results: Preliminary results show that the SPAN+ program supports healthcare professionals to increase attention for empowerment of residents living with dementia, by reflecting together with other healthcare professionals on what matters for each individual resident. Difficulties were reported in engaging family caregivers in the SPAN+ program.

Conclusion: The SPAN+ program seems valuable to increase the focus of healthcare professionals on a sense of identity, usefulness, control, and self-worth of people living with dementia in a nursing home, and to promote their empowerment.

416 - Family quality of life in Neurodegenerative Diseases and associated factors

Eva González, Alba Aza, Isabel Vicario-Molina, María Gómez-Vela, Mª Begoña Orgaz & Marta Badia

Introduction: Neurodegenerative diseases (NDs) are one of the major causes of dependency among older people. Since family members assume most of the care, the impact of NDs goes beyond the patient and affects the functioning of the entire family. Nonetheless, the concept of Family Quality of Life (FQOL) is still insufficiently developed in this field: the literature has focused on family caregivers from an individual perspective, paying less attention to the family unit. Hence, the objectives were to describe FQOL of people with NDs and to identify factors associated, from a holistic point of view.

Method: The sample consisted of 300 family members of patients with NDs (70% females; mean age: 62.4) living in the cross-border region of Spain-Portugal, mostly in rural areas. The majority were primary caregivers. They completed the *FQOLS–ND* via telephone. This survey examined how the family perceived its FQOL at the global and domain-level, in terms of attainment and satisfaction (measured on a 5-point Likert scale). It also collected data on diverse respondents' and family characteristics.

Results: The average score in Global FQOL was 3.65 (SD = 0.70) for attainment and 3.69 (SD = 0.47) for satisfaction. By domains, the highest value was found in Family Relations and the lowest in Support from services. Twenty hierarchical multiple regressions examined the potential predictors of Global FQOL and the nine domains for attainment and satisfaction. Medium predictive values (from R^2=.14 to R^2=.20) were found in Financial wellbeing (satisfaction), Support from services, and Leisure. The number of perceived barriers to social-health services was a significant predictor in all the explanatory models (the most frequently cited being: long wait for service, services not available, problems with transportation, lack of information, and financial costs).

Conclusions: These results confirm that NDs are especially challenging in rural areas, where families feel more isolated and have fewer opportunities to receive professional support. Therefore, there is a need to design of a specific portfolio of services, resources and benefits that involves the key sectors of family welfare (public, private, third sector and family) and brings them closer to these areas, covering all the needs.

Keywords. Neurodegenerative disease; family quality of life; FQoLS-ND; Services.

417 - Comparison of prevalence and disturbance of neuropsychic symptoms between institution-dwelling and community-dwelling patients with dementia

Xuejiao Lu, Jialan Wu, Rui Ye, Xiaoyan Liao*

Abstract

Objectives To explore differences in prevalence and disturbance of behavioral and psychological symptoms of dementia (BPSD) between institution-dwelling and community-dwelling patients with dementia.

Methods A cross-sectional survey was conducted. Institution-dwelling (n=112) and community-dwelling patients with dementia (n=157) were enrolled from a nursing home and a tertiary psychiatric hospital located in Guangzhou, China, from March 2019 to September 2019. Neuropsychiatric Inventory (NPI) was used to assess the prevalence and disturbance of BPSDs.

Results The community-dwelling patients were older, and having more antianxiety, anticonvulsant, anti-depression, anti-dementia medication use than institution-dwelling patients, while institution-dwelling patients used more antipsychotics than community-dwelling patients. The prevalence of hallucinations (χ^2 = 8.55, P = 0.004), agitation (χ^2 = 5.38, P = 0.026), depression (χ^2 = 22.78, P < 0.001), anxiety (χ^2 = 47.17, P < 0.001), aberrant motor behavior (χ^2 = 4.72, P = 0.034), and sleep (χ^2 = 4.16, P = 0.047) was higher in community-dwelling patients than that in institution-dwelling patients. Moreover, the frequency, severity, and disturbance of almost all of the BPSDs were higher in community-dwelling patients than those in institution-dwelling patients, except for euphoria. High Odds of having hallucination (OR 2.48, 95% CI 1.37-4.49), anxiety (OR 7.36, 95% CI 3.82-14.17), sleep disorder (OR 1.77, 95% CI 1.02-3.10) was observed in community-dwelling patients. Severe dementia was another risk factor for having hallucination (OR 5.48, 95% CI 2.25-13.38), anxiety (OR 2.73, 95% CI 1.22-6.12), sleep disorder (OR 2.61, 95% CI 1.21-5.64), apathy (OR 3.03, 95% CI 1.49-6.19), and irritability (OR 2.6, 95% CI 1.24-5.51). Community-dwelling and severe dementia were two main risk factors for higher NPI scores (adjusted R^2 = 0.30), and higher disturbance of anxiety (adjusted R^2 = 0.21), sleep disorders (adjusted R^2 = 0.15), hallucination (adjusted R^2 = 0.12) and irritability (adjusted R^2 = 0.11).

Conclusion The prevalence and disturbance of BPSDs were higher in community-dwelling patients with dementia than institution-dwelling patients. Community-dwelling and severe dementia were two main risk factors for higher prevalence and disturbance of BPSDs, especially for anxiety, sleep disorders, and hallucination. Providing community-based BPSDs coping skill training and support for informal caregivers are needed.

Keywords: Community, Dementia, Long-term care, Informal caregiver, Neuropsychiatric symptoms

418 - Long-term Effect of Transcranial Direct Current Stimulation (tDCS) in Alzheimer's Dementia

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Abstract:
Introduction: To explore and develop effective treatments is crucial for patients with Alzheimer's dementia (AD). In pathology, the amyloid deposits of AD result in disruption of the balance between long-term potentiation (LTP) and long-term depression (LTD) of neuronal cells and synaptic plasticity. Transcranial direct current stimulation (tDCS) has been proposed to affect long-term synaptic plasticity through LTP and LTD, thereby improving cognitive ability. Although an increasing number of studies have been concluded a positive therapeutic effect on cognition in AD, tDCS studies to date are limited on exploring the duration of its efficacy. In this pilot study, we investigate the effects of tDCS in AD and verify its extending beneficial effects for 3 months follow-up period after the end of stimulation.

Method: 34 AD participants aged 55-90 years (mean age 75.9 (66-86)) were included in a double-blind, randomized, sham-controlled crossover study. All participants were randomly assigned to receive 10 consecutive daily sessions of active tDCS (or sham) and switched groups 3 months later. The anodal electrode was on the left dorsal lateral prefrontal cortex and the cathodal electrode was on the right supraorbital area. In each active session, we applied a current intensity of 2 mA and an electrode size of $25\,cm^2$ for 30 min in the active group. All subjects received a series of neuropsychological assessments including CDR, MMSE, CASI and WCST at baseline and in 2 weeks, 4 weeks, and 12 weeks post-tDCS (or sham) 10 sessions. Chi-square tests, Wilcoxon signed rank tests and Mann-Whitney U tests were used to assess the differences in participant demographic characteristics and to compare the differences of test scores between groups.

Results: The active tDCS group showed significant improvements on CASI total scores from baseline to 2-weeks, 1-month and 3-months after active stimulations, though the improvement declined over time. There are also different presentations in total correct items, conceptual level responses, failure to maintain sets of WCST between active tDCS and sham groups. There is no difference in MMSE, CASI and WCST scores in the sham groups.

Conclusion: These results suggest a long term-beneficial effects of tDCS in AD.

Key words: Transcranial Direct Current Stimulation, Alzheimer's dementia, cognitive function, Wisconsin Card Sorting Test

419 - Effect of Transcranial Direct Current Stimulation (tDCS) in Dementia with Lewy Bodies

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Abstract:
Introduction: Dementia with Lewy Bodies (DLB), this second most common form of degenerative dementia, presents more functional disability, more potentially fatal complication, more impaired quality of life than Alzheimer's dementia. There is no FDA-proved medication can slow, stop or improve the progression of cognitive declines in DLB. Identifying effective treatments is a critical issue for DLB. In neuropathology, extracelluar α-syn oligomers interfere with the expression of long-term potentiation, and influence memory and learning. Transcranial direct current stimulation (tDCS) has been proposed to affect long-term synaptic plasticity through LTP and LTD, thereby improving

cognitive ability. So far, only two researches assess the effect of tDCS in DLB. In this pilot study, we investigate the effects of tDCS in DLB.

Method: Using a double-blind, randomized, sham- controlled and crossover trial design, 11 DLB aged 55-90 years (mean age 77.8) were included in the study. DLB diagnostics is according to DSM-5 criteria. The CDR ratings of DLB participants ranged from 0.5 to 2. The active tDCS (or sham) process includes consecutive daily sessions of active tDCS (or sham) for 10 days. The anodal electrode was over the left dorsal lateral prefrontal cortex (DLPFC) and the cathodal electrode on the right supraorbital area. In each session, we applied a current intensity of 2 mA and an electrode size of 25 cm^2 for 30 min in the active group. All subjects received a series of neuropsychological tests, which included CDR, MMSE, CASI, NPI and WCST, before and after these treatment sessions. Chi-square tests, Wilcoxon signed rank tests and Mann-Whitney U tests were used to assess the differences in participant demographic characteristics and to compare the differences among groups.

Results: On CASI, MMSE, NPI and WCST, there were no statistically significant differences between pre- and post the 10-session course for the active and the sham groups. No side effects reported during or immediately after active tDCS stimulation.

Conclusion: These results suggest that left DLPFC anodal, and right deltoid cathodal tDCS, do not improve cognition, behavioral and psychological symptoms in DLB. Larger-scale trials are needed to confirm the effect of tDCS in DLB.

Key words: Transcranial Direct Current Stimulation, Dementia with Lewy Bodies, cognitive function, Wisconsin Card Sorting Test

420 - Ketamine treatment in geriatric depression
Authors: Janette Leal, MD; Maria Lapid, MD; Simon Kung, MD

Treatment resistant depression can be very disabling and has a significant negative impact on a patient, their family or caregivers, and the society. There is a growing evidence on the efficacy and safety of ketamine for treatment resistant depression. Ketamine is a racemate consisting of esketamine and arketamine, is an N-methyl D-aspartate receptor antagonist and comes in different formulations and in fact intranasal ketamine is FDA-approved in the US. Despite the existing evidence and FDA approval for treatment resistant depression, data on older individuals remains limited. Late life depression especially those that are treatment resistant can be very disabling, with significant functional and cognitive impairments, increased morbidity and mortality, and the psychosocial burdens.

This presentation describes outcomes for 2 cases of older individuals with treatment resistant depression who were treated with intranasal ketamine. One improved, and one did not. The scarce available literature of the use of ketamine in the geriatric population shows ketamine is well tolerated and effective. Remission rates in 3 separate show remission rates of 46.5%, 57% and 69.5% respectively. The discussion will include a review of the mechanism of action of ketamine as a novel antidepressant, the mixed evidence for its role in treatment resistant late life depression, and the practical and operational aspects relevant to running a ketamine clinic.

421 - Prevalence of Pain in Dementia Subtypes: Data from a National Sample of Aged Care Residents in Australia

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Background: Pain is poorly identified in dementia due to complete or partial loss in communication, which is associated with progressive cognitive impairment. If it goes untreated, pain can lead to behavioral disturbances (e.g., agitation/aggression), delirium, inappropriate pharmacotherapy (e.g., psychotropics), hospitalizations and caregiver distress. There are limited prevalence data in the literature on pain in dementia subtypes.

Objective: This study aims to investigate the prevalence and intensity of pain in various dementia subtypes in aged care residents living with dementia (RLWD), using a technology-driven pain assessment tool.

Methods: A 1-year retrospective cross-sectional study was conducted on the presence and intensity of pain in referrals to Dementia Support Australia from residential aged care homes (RACHs), using PainChek®. PainChek® is a pain assessment tool that uses artificial intelligence algorithms (e.g., automated facial recognition and analysis) to identify facial expressions indicative of pain in conjunction with other digital checklists of pain behaviors such as vocalization and movement cues. Presence and intensity of pain were identified using PainChek® categories (scores): no pain (0-6), mild pain (7-11), moderate pain (12-15) and severe pain (16-42).

Results: During the study period (01/11/2017-31/10/2018), a sample of 479 referrals (age: 81.9 ± 8.3 years old; 55.5% female) from 370 RACHs with Alzheimer's disease (AD; 40.9%), vascular dementia (VaD; 12.7%), mixed dementia (MD; 5.9%), dementia with Lewy body (DLB; 2.9%), and frontotemporal dementia (FTD; 2.3%) were examined. Pain was prevalent in two-thirds (65.6%) of the referrals with almost half (48.4%) of these categorized as experiencing moderate-severe pain. MD and those with DLB (78.6% each) shared the highest prevalence of pain, followed by AD (64.3%) > VaD (62.3%) > FTD (54.6%). Prevalence of severe pain was as follow: MD (17.9%) > AD (12.3%) > VaD (11.5%) > FTD (9.1%) > DLB (7.1%).

Conclusion: To date, this is the largest study that presented data on pain prevalence and intensity in major dementia subtypes in the RACH setting. Moderate-severe pain is highly prevalent in RLWD, which appears to differ by dementia subtypes. This may reveal the impact of neuropathological etiology of those subtypes on the neurobiology of pain.

Word count: 344 words

Atee M, Morris T, Macfarlane S, Cunningham C. Pain in Dementia: Prevalence and Association with Neuropsychiatric Behaviors. J Pain Symptom Manage. Oct 14 2020;61(6):1216-1227. doi:10.1016/j.jpainsymman.2020.10.011

422 - Evaluating the Clinical Impact of National Dementia Behavior Support Programs on Neuropsychiatric Outcomes in Australia

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Background: People living with dementia (PLWD) in residential aged care homes (RACHs) are frequently prescribed psychotropic medications due to the high prevalence of neuropsychiatric symptoms, also known as behaviors and psychological symptoms of dementia (BPSD). However, the gold standard to support BPSD is using psychosocial/non-pharmacological therapies.

Objective: This study aims to describe and evaluate services and neuropsychiatric outcomes associated with the provision of psychosocial person-centered care interventions delivered by national multidisciplinary dementia-specific behavior support programs.

Methods: A 2-year retrospective pre-post study with a single-arm analysis was conducted on BPSD referrals received from Australian RACHs to the two Dementia Support Australia (DSA) programs, the Dementia Behavior Management Advisory Service (DBMAS) and the Severe Behavior Response Teams (SBRT). Neuropsychiatric outcomes were measured using the Neuropsychiatric Inventory (NPI) total scores and total distress scores. The questionnaire version "NPI-Q" was administered for DBMAS referrals whereas the nursing home version "NPI-NH" was administered for SBRT referrals. Linear mixed effects models were used for analysis, with time, baseline score, age, sex, and case length as predictors. Clinical significance was measured using Cohen's effect size (d; ≥0.3), the mean change score (MCS; 3 points for the NPI-Q and 4 points for the NPI-NH) and the mean percent change (MPC; ≥30%) in NPI parameters.

Results: A total of 5,914 referrals (55.9% female, age 82.3 ± 8.6 y) from 1,996 RACHs were eligible for analysis. The most common types of dementia were Alzheimer's disease (37.4%) and vascular dementia (11.7%). The average case length in DSA programs was 57.2 ± 26.3 days. The NPI scores were significantly reduced as a result of DSA programs, independent of covariates. There were significant reductions in total NPI scores as a result of the DBMAS (61.4%) and SBRT (74.3%) programs. For NPI distress scores, there were 66.5% and 69.1% reductions from baseline for the DBMAS and SBRT programs, respectively. All metrics (d, MCS, MPC) were above the threshold set for determining a clinically significant effect.

Conclusions: Multimodal psychosocial interventions delivered by DSA programs are clinically effective as demonstrated by positive referral outcomes, such as improved BPSD and related caregiver distress.

Word count: 350 words

Macfarlane S, Atee M, Morris T, Whiting D, Healy M, Alford M, Cunningham C. Evaluating the clinical impact of national dementia behaviour support programs on neuropsychiatric outcomes in Australia. *Front Psychiatry*. 2021;12:652254. doi:10.3389/fpsyt.2021.652254

423 - Characteristics of specialized units for people with dementia and very severe challenging behavior in the Netherlands: a mixed method study

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Introduction: Little is known about the raising number of specialized units for patients with dementia and very severe challenging behavior in the Netherlands. This study describes organizational and treatment characteristics of a sample of these units.

Methods: The organizational and treatment characteristics were studied with digital questionnaires completed by the unit managers, interviews with the main physician(s) and observation of the physical environment. The questionnaire consisted of questions about general patient characteristics, unit characteristics and staff characteristics. Furthermore, an interview was held with the main/treating physician often together with another physician or psychologist. The interview guide consisted of questions about admission criteria, the role of staff involved and the treatment process.

Results: Thirteen units participated. Five units were part of a mental health (MH) institution, seven units were part of a nursing home (NH) organization and one unit was a cooperation of MH and NH. Unit sizes ranged from 10 to 28 places. Ten of thirteen units started in 2010 or later. The age of patients admitted was estimated at 75 years. The percentage of involuntary admitted patients was 53% at MH-units and 18% at NH-units. Unit managers mentioned that due to a difference in reimbursement between MH and NH units had difficulty providing the specialized care. Another problem managers faced was recruiting nursing staff. Units strived for expertise in general staffing from both MH and NH. The education level of the nursing staff was comparable between MH and NH. At every unit a physician with background in elderly care medicine or geriatrics and a psychiatrist was involved. Interviewees stressed the role of the nursing staff in the treatment. They were key in providing the care and treatment that, since the main goal of interventions is treatment of and coping with challenging behavior.

Conclusion: The main finding of this study is that units caring for patients with dementia and challenging behavior, despite barriers in regulations and staffing shortage, search for combining expertise from nursing home care and psychiatry in their treatment.

424 - Cardiac Healthcare Disparities in Schizophrenia at the End-of-Life

Authors: Baruth, J., Bateman, D., Bateman, P. Kovacs, R., Lapid, M.

Background: Schizophrenia is a serious mental illness associated an early mortality of 15 to 20 years. Eighty percent of deaths are due to cardiovascular disease, and the risk of sudden cardiac death is three-times greater than the general population. Both modifiable and non-modifiable risk factors like lifestyle, medication side-effects, genetics, and healthcare disparities have been identified, but this relationship is not fully understood.

Research Objective: To examine cardiac-related healthcare utilization of individuals with schizophrenia at the end-of-life.

Method: As a retrospective cohort study the Mayo Clinic Unified Data Platform (UDP) was used to identify a schizophrenia group (SG) (n = 610) 50 years or older with a death date between 1/1/1999 – 1/1/2019 and control group (n = 610) matched by gender (53% women) and age of death (72.8 ± 12.4 years). Measures of cardiovascular healthcare utilization were evaluated within a 12-month period prior

to death. Pearson's chi-square (χ2), analysis of variance was used (ANOVA), and logistic regression were used for statistical analysis.

Results: SG was more likely than controls to be unmarried, unemployed, or from racial minority groups (all $p<0.001$) and was more likely to have diabetes mellitus ($p<0.001$) or cardiovascular disease ($p=0.004$). SG was less likely to receive an electrocardiogram (ECG) ($p<0.001$), echocardiogram ($p=0.003$), or cardiac catheterization procedure ($p<0.001$), and more likely to receive hemoglobin A1C testing ($p<0.001$). Of those receiving an ECG, SG had a greater mean QTc interval (453.8 ms vs. 438.0 ms; $p<0.001$) and were twice as likely to have an ECG result interpreted as "prolonged QTc" ($p<0.001$). Between group differences for utilization of troponin or low-density lipoprotein testing, or pacemaker-related procedures were not statistically significant.

Conclusion: Individuals with schizophrenia in this cohort were less likely to receive cardiovascular evaluations and interventions during their last year of life. Despite the higher likelihood for prolonged QTc, a recognized biomarker of cardiac risk, SG was less likely to receive an ECG. Given the greater cardiac comorbidity and higher risk of sudden cardiac death in schizophrenia, interventions are needed to address these disparities in care.

425 - Incorporating young children into family caregiving for people with dementia in Taiwan.
Author List: Ching-Yi Kuo, MA. Shu-Chuan Chen, PhD. National Tainan Junior College of Nursing.

Background:
Positive attitudes and appropriate knowledge about dementia are essential for the provision of suitable dementia care. Children as future voters may take on a critical role to increase community awareness and knowledge about dementia. Guided by Chinese filial piety cultural virtues, Taiwanese children are taught to respect and care for family seniors and extend this respect to other seniors. Accordingly, young children are considered part of family dementia caregiving system, despite children rarely assume formal caregiver role and not directly provide care work. However, Taiwanese children may possess stigmatized attitudes toward dementia due to a lack of proper dementia knowledge.

Research Objective:
This study aims to survey Taiwanese children age 9-11 years old attitudes and knowledge to the concepts of dementia.

Methods: A total of 312 Taiwanese children from 8 elementary schools in the south Taiwan, aged 9-11 years old, were surveyed to assess their knowledge and attitudes toward dementia. Participants completed The Kids Insight into Dementia (KIDS), which is a 5-scale questionnaire containing three factors, "Personhood", "Stigma", and "Dementia Understanding". The data was analyzed using quantitative method.

Results: The results show that Taiwanese children are unfamiliar with dementia as related to brain disease (M= 3.94, SD=2.91), Taiwanese children are unfamiliar about nursing home provision of care (M=3.97, SD=2.17), Taiwanese children do not know the course of dementia disease (M=3.34, SD-1.39). Participants scored high on the question of "people with dementia have hobbies and interests" (M=4.15, SD=1.22); Participants reported that they agreed less often with stigma attached to the people with dementia, including items of "I would feel a bit scared if I met someone dementia in the street" (M=2.70, SD=1.79), "people with dementia can be creepy" (M=2.18, SD=1.71), "It would be annoying of frustrating to spend time with someone with dementia" (M=2.15, SD=1.17), "It is unlikely that I would meet someone with dementia" (M=2.36, SD=1.27).

Conclusions: Our findings suggest that Taiwanese children may express less stigmatized attitudes toward people with dementia and yet they report less understanding of concepts of personhood of people with dementia. Therefore, dementia education is necessary to increase dementia knowledge among school age children in Taiwan.

426 - Character Strengths association with Personal Growth in Grandparents providing Regular Care

Noriega, C., López, J., Pérez-Rojo, G., Galarraga, L., Velasco, C., Carretero, M.I., López-Frutos, P.

Introduction

The number of grandparents providing regular care for their grandchildren has increased substantially. Data drawn from the SHARE survey shows regular caregivers care for more than 30 hours per week in Europe. This means that many regular caregivers are performing tasks that are part of parents' responsibilities. Some research has shown lower perceived health and role strain. However, it can also offer opportunities to grow. Rapid social changes have led to grandparents not perceiving their predecessors as role models, making them having to update themselves to relate with their grandchildren. Character strengths are the natural ability by which thoughts, feelings and behaviours allow to achieve goals. They could help grandparents increase their perceptions of personal growth. However, the role played by character strengths in personal growth has not been studied yet.

Method

This study aimed to analyze what character strengths predict extended babysitters´ personal growth. This study included 107 grandparents providing regular care (more than 15 hours per week) to at least one grandchild from Spain. The average age was 69.46 (SD=7.02), 63.6% were women, 76% were maternal grandparents and the average daily hours of care provided was 5.07 (DT=14.61). To analyze data, we conducted stepwise multiple regressions.

Results:

In step one, the total score of character strengths explained 21.1% of the variance in personal growth ($F(1, 105)$= 28.14; $p \le .001$). The total score of character strengths and emotional intelligence accounted for 25.6% of the variance in step two ($F(1, 104)$= 17.91; $p \le .001$). In the final step, total character strengths, emotional intelligence and creativity explained 28.6% of the variance ($F(1, 103)$= 13.79; $p \le .05$). The higher scores in character strengths, emotional intelligence and creativity, the more personal growth grandparents showed.

Conclusion:

These results reflect the importance of considering character strengths as factors associated with grandparents´ personal growth. Future interventions focused on extended babysitters could consider character strengths. Especially, creativity and emotional intelligence, strengths that may help grandparents to connect and dialogue with their own emotions and those of their grandchildren as well as experience the difficulties associated with caregiving as opportunities for growth and development.

427 - Psychoeducation Program for the Prevention of Older Adults´ Infantilization in Professionals working in Nursing Homes

Noriega, C., Pérez-Rojo, G., López, J., Velasco, C., Carretero, M.I., López-Frutos, P., Galarraga, L.

Introduction

Kayser-Jones (1981) described infantilization as one of the four most frequent types of violence in nursing homes. Older people perceive infantilization as disrespectful and patronizing. In professionals, it can lead to protective behaviors that reduce autonomy and generate more dependency. Despite the importance of this phenomenon, the interventions are scarce and show methodological limitations.

Objective

This study analyzed the efficacy of a psychoeducation program for the prevention of infantilization in professionals working in nursing homes. The sample included 154 direct-care workers. The experimental group (N=111) attended a psychoeducational group intervention program while the control group (N=43) did not attend any intervention program. We assessed the infantilized practices the professionals recognized they conducted and the ones observed in the institution before and after the intervention. The intervention lasted 6 hours and included four sessions distributed in two days. These sessions aimed to reduce negative stereotypes, preventing infantilized communication patterns and the use of behaviors or practices that are frequently used with children. We also offered professionals alternative practices that recognize autonomy, decision-making and respect older adults´ dignity and uniqueness. To analyze data, we conducted Repeated measures of ANOVA and one-way ANCOVAs.

Results:

The scores of infantilization in the experimental group significantly decreased from pre-intervention to post-intervention in the professional, $F(1, 85) = 37.184$, $p = .01$, *partial η2* = .030, and in the institution, $F(1, 84) = 32.128$, $p = .01$, *partial η2* = .277, while the control group did not show any changes. There was a statistically significant difference in post-intervention between the experimental and the control group when participants scored their infantilization practices, $F(1, 115) = 5.175$, $p = .03$, *partial η2* = .043, and infantilization practices observed in the institution, $F(1, 115) = 5.810$, $p = .018$, *partial η2* = .048.

Conclusion:

These results reflect the importance of developing interventions focused on preventing infantilization, methodologically rigorous, in which professionals´ training and education are considered key pieces to generate a culture of change. More research is needed to understand this problem in greater depth to develop programs that address this problem at different levels.

428 - Reflections on geriatric psychopharmacology in Portugal

Authors: B. Jorge[1], C. Pedro[1], J. Carvalho[1], S. Carneiro[1], M. Mangas[2];

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Background: The most common psychiatric illnesses include depressive and anxiety disorders. However, the gap between therapeutic indication and pharmacological consumption is evident, with anxiolytics and antidepressants being some of the most prescribed drugs for the general population and, in particular, for the elderly. However, several of these psychotropic drugs are

part of the list of potentially inappropriate medications for the elderly. Thus, the question arises: is the appropriate care being given to older patients, in this domain?

Research objective: This work aims to reflect on the current structure of the mental health care network for elderly patients, focusing on consumption patterns among the various categories of psychotropic drugs and their physiological impact, taking into account the particularities of the target population.

Method: A non-systematic review of the literature is presented. Bibliographic selection was carried out through keyword research in MEDLINE, Google Scholar and also by cross-referencing between articles.

Results: In Portugal it was possible to infer that the consumption of anxiolytics and antidepressants increased ans was in line with the European trend. On the other hand, there has been a downward trend in the consumption of sedatives and hypnotics, opposite to the general trend in Europe. Due to changes related to pharmacokinetics and pharmacodynamics, older patients are more susceptible to the development of adverse reactions, the prevalence of potentially inappropriate medications is high in the context of mental health care. Switching drugs such as benzodiazepines, certain antipsychotics, tricyclic antidepressants and first-generation antihistamines significantly reduced the risk of adverse reactions.

Discussion: Mental health care policies must be aligned with the conscious use of psychotropic drugs in the elderly population, at risk of the main objective, their well- being and care, being compromised.

429 - Human rights crisis for older people during the COVID-19 pandemic in India: Psychosocial cohesion as a mitigating strategy
Debanjan Banerjee, Consultant Geriatric Psychiatrist

It has been more than a year of the global unprecedented Coronavirus disease 2019 (COVID-19) crisis. The pandemic has exposed and exploited risks not only related to health, but also the societies, economies and our future. India, being one of the worst hit nations during this outbreak, has faced a significant economic fallout with certain vulnerable populations enduring major humanitarian crisis. The frontline workers, age and gender minorities, socio-economically impoverished and migrant workers have been disproportionately affected in India, with the disparities being widened further in the sub-continent with the second largest population and a marked socio-ethnic diversity.

COVID-19 is in no way a "great equalizer", contrary to its popular term. Older adults are at disproportionate risk of severe infection, mortality as well as loneliness, seclusion, abuse and neglect during the pandemic. Age and ageism have both factored as risks for physical and psychosocial burden of the elderly. Besides the medical factors, lack of social security, isolation, stigma, sexism, elder abuse, loss of autonomy and restricted healthcare access are crucial in the pandemic situation. Among the proposed pathways to restore human rights and societal balance during such a global crisis, social cohesion is a potential strategy. A multi-dimensional driver of long-term prosperity and collectivism, social cohesion refers to the extent of connectedness and solidarity among various groups. Interpersonal relationships within the community and sense of belongingness are the twin pillars on which social cohesion stands. This presentation reviews psychosocial vulnerabilities of older adults during infectious disease outbreaks in light of the present pandemic and proposes strategies to mitigate this marginalization through the WHO's concept of healthy ageing based on social cohesion and

inclusion. In this regard, policies and interventions require deep reflections on how best to balance opportunities and adversities, and sustain resilience to cope both with the present and future.

430 - Burnout and Negative Stereotypes: How They affect the Quality of Life of Professionals working in Nursing Homes.

López-Frutos, P., Pérez-Rojo, G., López, J., Noriega, C., Velasco, C., Carretero, M.I., Galarraga, L.

Introduction
The quality of life (QoL) of professionals working in nursing homes is often impaired by the stress that they experience daily. This sustained stress is known as burnout. A syndrome that ends up negatively affecting all areas of life and decreasing their quality of life. Negative stereotypes can alter how professionals perceive older adults. The literature has supported the relationship between high levels of burnout and negative stereotyping. These may moderate the impact of stress as a function of how they perceive stressors as reported by Lazarus and Folkman (1984).

Objective
This study aimed to analyze how burnout affects professionals´ quality of life and how this relationship is moderated by their stereotypes towards the residents. The sample included 312 professionals working in nursing homes. Quality of life (QPL-35), burnout (MBI) and negative stereotypes towards older adults´ health, motivation and personality (CENVE) were measured. To analyze the data, we performed linear regression models.

Results:
We found a negative relationship between burnout and quality of life (p<0.001; R^2=0.47). The results of the moderation analysis show that they are significant regarding total stereotypes variable (M1: b=0.10, SE=0.04, t=2.18, p=0.03), the health subscale (M2: b=0.14, SE=0.04, t=3.11, p<0.001) and the social-motivation subscale (M3: b=0.09, SE=0.05, t=1.79, p=0.07). In contrast, character-personality subscale did not show any significant moderation (M4: b=0.06, SE=0.05, t=1.25, p=0.21).

Conclusion:
These results reflect the importance of investigating the role of stereotypes and their relationship with professionals´ quality of life and burnout. Future intervention programs that aim to prevent negative stereotypes are needed not only to improve residents´ quality of life, but also for professionals wellbeing and quality of life.

431 - Establishing a Canadian National ECHO Educational Program focused on Mental Health of Older Adults

Authors:
David Conn, Lisa Sokoloff, Claire Checkland, Jasmeen Guraya, Vivian Ewa, Sid Feldman, Cindy Grief, Andrea Hunter Navena Lingum, Ian MacKay, Kiran Rabheru, Anna Santiago, Dallas Seitz, Devin Sodums, Laurel Steed

Background
Project ECHO is a virtual, case-based capacity-building education program for healthcare providers. It was developed in New Mexico, USA but, due to its effectiveness, the model has now spread to 40

countries around the globe. Baycrest, the Canadian Coalition for Seniors' Mental Health and the Canadian Academy of Geriatric Psychiatry collaborated to launch a national ECHO for mental health and aging. This partnership, coordinated by a cross-Canadian Steering Group, allows for broad reach, including registration of learning partners from almost all Canadian provinces and territories. The program was funded by the RBC Foundation.

Methods

ECHO COE: Mental Health pilot consisted of 2 cycles:
- 6 weekly sessions focused on broader mental health topics (e.g., delirium, mood disorders)
- 10 weeks with more specific topics (e.g., substance use disorders, sleep disorders)

Needs assessments of healthcare providers and older adults informed the program curricula. Evaluation included weekly satisfaction surveys, and pre and post evaluations.

Results

Participants:
- 154 healthcare providers participated in the 6-week session
- 39% of registrants were nurses or nurse practitioners, 35% allied health professionals, 14% physicians and 12% others
- 9 out of 10 provinces, 1 territory represented

Preliminary findings (based on the first 6 sessions):
- High overall satisfaction (average of 4.5 out of 5).
- 99% would recommend the program to others
- 67% had already shared information with team members and colleagues.

Conclusion

A national ECHO program is an effective way to bring together clinicians who work with and are interested in the mental health and wellbeing of older adults for education sessions, collaborative and mutual learning as well as for cross-jurisdictional knowledge transfer. Collaborative, cross-professional learning supports the exchange of best practice in mental health for older adults, supports the development of collegial national professional support and can address health system inequities.
An international ECHO through IPA would be an exciting and valuable next step.

432 - Ultrabrief Right Unilateral ECT in Older Adults with Catatonia: A Case Series and Literature Review

Authors: Cristina Pritchett, MD.; Adriana Hermida, MD.; Amanda Tan B.S; Gregory Job, MD.

Objectives: Comparing Ultra-brief (UB) Right Unilateral Electroconvulsive Therapy (RU ECT) to the existing literature, this case series highlights the use of the treatment with geriatric patients.
Methods:
This is a retrospective chart review of 5 patients with catatonia who were successfully treated with UB RUL ECT. Medical records were reviewed for clinical data and ECT treatment. The existing literature is compared and contrasted with other published cases. Quick Inventory of Depressive Symptomatology (QIDS) was completed both pre-ECT and post-ECT. Clinical Global Impression–Improvement (CGI-I) scale was performed post-ECT. Response was defined as decrease of QIDS by 50% and remission was defined as QIDS ≤5. CGI response was defined as CGI-I ≤2.
Results:
All patients received UB RUL ECT treatment (mean age 67, 100% female). 20% (n=2) were caucasian. 60% had mood disorders and 40% had psychotic disorders. Number of treatments in the acute

treatment course ranged from 5 to 20, charge was dosed at 6-10 times the seizure threshold determined at first treatment. All patients had a significant clinical response to ECT as reflected by clinical data, ECT procedure notes, and rating scales when available. All patients completed post ECT CGI-I. Response rate was 60% (n = 3). We also assessed QIDS scores for patients with comorbid depression. Out of these patients, 40% (n = 2) were unable to complete baseline QIDS secondary to symptoms severity. Mean baseline QIDS for the remaining patients was 9.67 (SD 1.53). Post-treatment QIDS was 3.67 (SD 5.51). Paired-samples t-test comparing these scores at baseline and post-ECT demonstrated a significance P value of 0.14. None of the patients experienced worsening of cognitive function.

Conclusions:
UB RUL ECT is a safe and effective treatment for Catatonia. Our data demonstrate clinical improvement in patients with Catatonia with UB RUL ECT. In addition, this method may lower the burden of cognitive effects that can significantly benefit the older adult population. The literature is limited regarding the use of Ultra-brief (<0.37 milisec) Right Unilateral (RU) ECT in Catatonia. Additional studies will benefit from the inclusion of objective metrics such as Bush Francis Catatonia Scale, Scale for the Assessment of Psychotic Symptoms (SAPS), and the systematic evaluation of cognitive status and function.

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433 - A possible link between Bipolar Disease and Frontotemporal Dementia

Authors: B. Jorge[1], C. Pedro[1], J. Carvalho[1], S. Carneiro[1], M. Mangas[2];
[1]Hospital de Braga, Serviço de Psiquiatria, Braga, Portugal, [2]Unidade de Saúde Local doBaixo Alentejo, Serviço de Psiquiatria, Beja, Portugal

Background: Both neurological and psychiatric symptoms are observed among mental disorders and represent a challenge for the differential diagnosis, specially in old adults presenting behavioral changes. Investigations have documented manic/hypomanic symptoms from behavioral variant frontotemporal dementia(bvFTD), suggesting a relationship of bipolar disease (BD) with bvFTD.

Research objective: This work aims to determine the relationship between patients with bipolar disease and behavioral variant frontotemporal dementia.

Method: A non-systematic review of the literature is presented. Bibliographic selection was carried out through keyword research in MEDLINE and Google Scholar.

Results: An early stage of bvFTD often displays a mix of behavioral disturbances and personality changes. Also, BP is associated with a higher risk of dementia in older adults and with cognitive impairment, where a subset of patients presents a neuroprogressive pattern during the disease course. It was shown a specific type of post-BD dementia with clinical features of bvFTD and cases of patients with marked manic symptoms for the first time in their life had subsequent diagnosis of FTD. Mutations in the progranulin gene (GRN) were the most frequent causes of autosomal dominant FTD and have also been reported in sporadic FTD. Genetic polymorphisms

in this gene are also associated with schizophrenia and BD. An hypothetical model of shared mechanisms between bvFTD and BD was proposed, including specific mendelian mutations associated with genetic predisposition (e.g. brain-derived neurotrophic factor-BDNF gene) and environmental factors with an effect on cellular homeostasis (e.g. increased cell deaths, decreased synthesis of synaptic proteins) and an influence over behavioural and cognitive symptoms. Nevertheless, comparison of the executive functions, social cognition profiles and structural neuroimaging of bvFTD and elderly patients with BD showed difference in patterns.

Discussion: Although BD is principally considered a neurodevelopment disorder, while FTD is a neurodegenerative disorder, follow-up studies of cognitive deficits, imaging, and genetics in BD patients could elucidate the possible correlation between these major diseases and may have implications for pathogenesis, as well as for treatment.

435 - Innovation and entrepreneurship in gerontology and psychogerontology. The INVENTHEI project.

Prof. David Facal, Raquel Rodriguez Gonzalez, Cristina Lojo-Seoane, Manuel Gandoy-Crego

INVENTHEI (INnoVation and ENTrepreneurship in Higher Education Institutions) is an European project aimed to enhance the regional innovation ecosystems and promote innovation-driven research. In Spain, the University of Santiago de Compostela participates through the Master's Degree in Psychogerontology (Faculty of Psychology) and the Master's Degree in Gerontology (Faculty of Nursing). Learning and mentoring programme related with the ageing process is presented, focused on the social innovation and transfer capacities of our students, faculty and staff members. A challenged based multidisciplinary learning method is followed, including three training sessions (Session 1: Person- centred innovation; Session 2: Team-centred innovation; Session 3: Results-centred innovation) and online mentoring. Using this methodology, transfer of the learning is promoted in an agile and practical
way through the resolution of challenges proposed by external partners in the sector of gerontology and healthcare. The social innovation-training programme is complemented with a workshop about innovation driven research in aging and presentation of business cases, involving the organizational ecosystem of the sector.

436 - Scaling up a community-based intervention for people affected by dementia: what is the value?
Nathan Stephens

The Meeting Centres Support Programme [MCSP] provides community-based social, emotional and practical support for people affected by dementia to adjust to the changes dementia brings. Since development in the Netherlands the MCSP has been successfully adapted and implemented in the UK led by the Association for Dementia Studies, University of Worcester. In January (2020), Worcestershire County Council announced £540,000 to scale up the provision of MCSPs across the county: Worcestershire Meeting Centres Community Support Programme [WMCCSP].

The novel county-wide approach will build real capacity, increasing the amount of people accessing post-diagnostic support, integrating services, reducing inequalities, and improving health and wellbeing; fundamental to the COVD-19 recovery plan (Department of Health and Social Care, 2020). This raises questions about the type of 'value' interventions such as the WCCMCSP should seek to achieve, including how it is captured and measured (Redding, 2016). This becomes more relevant when recognising only a

portion of outcomes will be related to health, but much of it is likely to support individual and community wellbeing and development. In this context, understanding and measuring the 'value' is timely.

A Concept Analysis (Rogers, 2000) of value in the context of community-based interventions for people affected by dementia informed a robust and systematic definition to assess the value created and/or destroyed by the WMCCSP. The research will develop definitions of value in this area from the perspective of key stakeholders including people affected by dementia.

Social Return on Investment principles will be employed to understand outcomes created and/or destroyed by the WMCCSP for stakeholders and measure them within an endogenous framework that encapsulates what is, per say, valuable. Progress on the process, challenges, and breakthroughs of this innovative and developmental approach will be presented at the conference.

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437 - The elderly and their sexuality: specific challenges and the roleof the psychiatrist

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Abstract

The model of sexuality currently in force is a young, genitalized model, that does not tolerate failures and often forgets about affective communication, sharing and body contact. This model is also not compatible with the natural aging process, generating manymyths about sexuality in later life.

Although a taboo subject, the majority (up to 70%) of healthy 70-year-olds revealedthemselves to be sexually active even with some sexual dysfunction reports. Low sexual desire (up to 43%) was the most prevalent reported sexual difficulty in women, and erectiledifficulties (up to 37%) were most prevalent among men.

Aging impacts sexuality in various ways: age-related organic/metabolic changes in men and women; age-related affective and cognitive changes also in both genders; age-and duration-related changes in a couple's dynamic interaction, which can lead to discrepancy between the partners and their sexual narratives.

In the sexual response cycle, aging affects the stages of desire, arousal/excitement,plateau, orgasm, and resolution/refractory period both men and women.

Depressed mood as well as the use of antidepressant drugs, deterioration of cognitive function and difficulties to communicate can cause loss of intimacy and emotional closeness which then may result in sexual withdrawal and difficulties. Repetitive experiences of failure increase even more the couple distress.

There are also to consider medical conditions, medication side effects, loss of physical capacity, subjective loss of attractiveness, lack of a partner, institutionalization or living withtheir children, which can be obstacles to sexual activity in the elderly.

Diagnostic workup has to integrate not only general medical, gynecological, urological andpsychiatric factors, but also take a systemic perspective which deals with the interaction pattern of the partners. Treatment of sexual dysfunctions in later life combines biomedical interventions with psychotherapeutic and psychosocial strategies. An essential therapeutic contribution for allcouples is, however, basic counseling and psychoeducation. Explaining how aging has an impact and how other individuals and couples experience these changes is an important step in empowering the couple, clarifying and correcting the sociocultural myths andencouraging the couple to build their very own sexuality.

OnDemand Poster

501 - Prediction of Mild Cognitive Impairment (MCI) progression to Alzheimer Disease (AD) or Dementia with Lewy Bodies (DLB): Is this possible neuropsychologically?

Panagiota Voskou, PhD, MD,MSc,

Objective: Aim of the present review study was to describe and compare the neurocognitive features of MCI which could predict its progression to DLB vs AD.

Background: Progression of MCI to AD or DLB is a relatively recent field of study with emphasis on the clinical or neuropsychological features of MCI which could potentially predict its progression to specific types of dementia.

Methods: A literature review in the Pubmed database has been made, after the year 2005, using the keywords: neuropsychological assessment; MCI; AD; DLB; progression to dementia. Seventeen relevant articles have been found.

Results: Data from most studies supports that, in MCI, impairment in executive, attentional and visuospatial functions, as well as letter fluency and fluctuating concentration are mainly related to progression to DLB. In contrast, prominent episodic and recognition memory deficits are mostly found in MCI which progresses in AD. Furthermore, non-amnestic MCI has been related most often to progression in DLB, whereas the amnestic type to AD, although memory loss may not necessarily predict the development of AD. Nevertheless, fewer studies suggest that MCI-DLB is related to cognitive profile similar to that of MCI-AD, while cognitive scoring alone does not accurately predict MCI-DLB vs MCI-AD. Interestingly, quantitative electroencephalogram has been found to help in predicting the progression of MCI to DLB, while preservation of hippocampal volume is associated with increased risk of DLB vs AD, especially in non-amnestic MCI. Moreover, specific patterns on neuroimaging MCI may predict progression to AD in contrast to DLB.

Conclusions: Predicting the progression of MCI to AD or DLB based on neuropsychological profiles is challenging and useful for early therapeutic interventions. More studies are needed, since there are some conflicting findings and, at present, the combination of clinical symptoms with neurocognitive assessment and neuroimaging is the ideal method for the prediction of MCI progression to various types of dementia.

502 - Diagnosis of dementia and post-diagnostic support – voice of people with dementia living in Poland

Authors:
Maćkowiak, M., Ciułkowicz, M, Duda-Sikuła, M., Szcześniak, D., Rymaszewska, J. on behalf of the COGNISANCE Team

Background:
The existing guidelines for the process of dementia diagnosis and treatment does not necessarily translate into optimal care and support for people with dementia. Such situation can have significant consequences. Misunderstanding of the new life situation as well as the negative perception of the diagnostic process itself are intensified by the limited options of post-diagnostic support. Especially in Poland, where the national dementia strategy has still not been implemented, experiences of people undergoing diagnosis and seeking support should be heard. By giving voice to people with dementia we can value their personal experiences, which due to the existing stigma, may often be overlooked and neglected.

Objective:
The aim of the study is to examine factors (conditions, barriers, facilitators) to receiving a dementia diagnosis and post-diagnostic support from the perspective of people with dementia living in Poland. The research was conducted as part of the JPND project *COGNISANCE*.

Methods:
Ten people with dementia diagnosed within last 24 months were interviewed with the use of selected projective techniques (word associations and third person expressive technique). An inductive qualitative content analysis approach has been implemented to analyse the obtained data.

Results:
Analysis revealed diverse categories encompassing broad spectrum of conditions, barriers and facilitators to receive a diagnosis and post-diagnostic support. People with dementia were prone to feeling positive emotions despite negative initial reactions during the diagnosis. Positive adaptation to the dementia were highly dependent on the empathetic attitude of the doctor and supportive family. Main needs were related to maintaining the independence, staying active, healthy and being socially connected. Interpersonal factors ensured sense of security and stability crucial for the well-being.

Conclusions:
Presented results provide important insight into the current experiences of people with dementia and represent guidelines for care providers and policy makers in introducing the optimal solutions in dementia support.

503 - Informal antidepressant strategies in nursing homes: Two Group Concept Mapping studies among residents, their relatives, and professional caregivers

Inge Knippenberg – Ruslan Leontjevas – Slavi Stoyanov – Anke Persoon – Peter Verboon – Hester Vermeulen – Jacques van Lankveld – Debby Gerritsen

Background: Although formal treatments like antidepressants and psychotherapy may effectively reduce depression in nursing home residents, side effects and poor treatment adherence are common. To improve depression care, it is important to also learn from informal strategies already used successfully in daily practice, alongside or in absence of formal treatment. For example, although not prescribed as formal treatment, a care provider may seat a resident with depression at a table near the window. This may have antidepressant effects due to extra day light or pleasant views from the window.

Objectives: To identify, categorize, and prioritize informal antidepressant strategies for residents already used in daily practice as reported by residents themselves, their relatives, and professional caregivers.

Method: In the first Group Concept Mapping study, residents, relatives, and professional caregivers (*N* = 124) brainstormed on strategies to prevent or improve depression that may be performed by residents themselves. In the second study, the same participants (*N* = 110) reported on strategies others involved in residents' lives could perform. In a second round of both studies, participants rated the expected effectiveness (*N* = 54, *N* = 51 respectively) and feasibility (*N* = 50 for both studies) of the strategies mentioned. In addition, strategies for both studies were sorted based on similarity in meaning by experts.

Results: Six clusters appeared for actions to be undertaken by residents themselves, and five clusters for actions by others. The results showed that, for strategies by residents, the clusters 'Being socially connected' and 'Participating in activities', and for strategies by others, the cluster 'Offering personal

attention' stand out the most in terms of high expected effectiveness. The cluster with strategies executed by residents that stood out as the most feasible was 'Having a healthy living environment'. The most feasible clusters performed by others were 'Offering personal attention', 'Using positive treatment/approach', and 'Using or adapting the physical environment'.

Conclusion: By using an innovative bottom-up participatory approach, this research shed light on various clusters of useful informal antidepressant strategies for daily practice. To test effectiveness and implementation, research is needed on these antidepressant strategies and their regular use in care.

504 - Periodontal Disease and Risk of Dementia in Medicare Patients with Hepatitis C Virus

Joseph E. Malone, Linh Tran, Jeah Jung, Chen Zhao

Objective: To examine whether periodontal disease increases the risk of developing Alzheimer's disease and related dementias (ADRD) among hepatitis C patients in Medicare claims data.

Background: Periodontal disease and hepatitis C virus (HCV) represent chronic infectious statesthat are common in elderly adults. Both conditions have independently been associated with an increased risk for dementia. Chronic infections are thought to lead to neurodegenerative changes in the central nervous system possibly by promoting a proinflammatory state. This is consistent with growing literature on the etiological role of infections in dementia. No studies have evaluated the association of periodontal disease with dementia in HCV patients.

Methods: We used Medicare claims data for HCV patients to assess the incidence rate of ADRDwith and without exposure to periodontal disease between 2014 and 2017. Diagnosis of periodontal disease, HCV, and ADRD were based on ICD-9 and ICD-10 codes. A Cox multivariate regression model was used to estimate the association between periodontal disease and development of ADRD, controlling for age, gender, race, ZIP-level income and education, and medical comorbidities.

Results: Of the 440,578 patients in the dataset, the incidence rate of ADRD in the periodontal disease group was higher compared to those without periodontal disease (10.77% vs. 9.27%, p<0.001, and those with periodontal disease developed ADRD earlier compared to those withoutperiodontal disease (1.15 vs. 1.78 years, p<0.001) . The hazard of developing ADRD was 1.23 times higher in those with periodontal disease (95% CI, 1.19 to 1.27, p< 0.001) after adjusting for all covariates, including age.

Conclusion: Periodontal disease increased the risk of developing ADRD in HCV patients in anational Medicare claims dataset.

505 - Reversible Dementia caused by Hypothyroidism – a case report
Diogo Almeida, Guadalupe Marinho

OBJECTIVES: Reversible causes are thought to explain about eight percent of all dementias. Hypothyroidism is one of the most important causes of potentially reversible dementia. Deficits in memory, psychomotor slowing, general intelligence, and visuoperceptual skills are particularly involved and may not fully recover. We review a clinical case of a reversible dementia caused by hypothyroidism, in a patientfollowed in our institution.

METHODS: Case report using clinical files, and brief literature review using Pubmed database, searching for the keywords "reversible dementia", "hypothyroidism" and"psychosis".

RESULTS: We present a case of a 76-year-old female patient admitted in our acute unitwith visual and auditive hallucinations and persecutory delusional ideation for 1 month. There was no previous psychiatric history. The patient was fully oriented in space, time and person, but there were clear memory deficits and sensitivity to antipsychotics. We used the Montreal Cognitive Assessment (MoCA) and the Frontal Assessment Battery (FAB), having the patient scored 17 on the former and 3 on the latter, failing in all tests except for grasping. On the blood tests, fT3 and fT4 levels werenear 0 and TSH was 40 µg/dL. We then discovered that the patient had a thyroidectomy 25 years ago and had been doing replacement treatment since then buthad discontinuated treatment on the previous six months. We also did magnetic resonance imaging that showed frontal microcirculatory changes but without clear atrophy. The patient was treated with aripiprazole 30mg and levothyroxine 0,150mg, being discharged after 1 month, without psychotic symptoms. About 1 year after, we repeated MoCa and FAB, scoring 27 and 16, respectively. The psychotic symptoms didn't recur even after the antipsychotic discontinuation.

CONCLUSION: We present a case of hypothyroidism induced dementia with psychotic symptoms, that fully recovered with thyroid replacement treatment, without previous neurological or psychiatric history.

506 - Methodologies used to study the feasibility, usability and effectiveness of social robots in clinical and social care settings for elderly adults

Aysan Mahmoudi, Mauricio Molinari, Henriette Van Der Roest, Manuel Franco

Background: In a search for innovative dementia care strategies, a new research fields have been dedicated to design social robots for older adults with cognitive impairments and dementia in order to promote their quality of life through communication and social interactions. Although the results are promising, the quality of studies on effectiveness of social robots in elderly adults is still low due to several methodological limitations (1). Then, we aim to review the methodologies used so far for conducting studies with social robots in clinical and social settings with people with dementia and elderly adults.

Method: Searches in Medline (PubMed), Web of Science, PsycInfo, and Cinahl yielded 33 studies included in the final review after applying inclusion and exclusion criteria. Reviews were conducted by two authors independently.

Result: Across 33 papers, 23 different social robots were examined on elderly adults and PwD, investigating feasibility, usability and effectiveness. A variety of study designs such as RCTs, mixed methods, cross-sectional and cohort were employed. Individual and group-based interventions took place in private households, LTCFs and labs within a single session or multiple sessions. Data were collected through observation, questionnaires, interview and physiological tests. Most revealed improvements were found in mood, engagement and participation. However, improvements in QoL, depression and cognition were not significant.

Conclusion: Despite the promising results, due to the insufficient methodology, failures and ambitious findings remain within the many aspects of the enquiry. Appropriate RCT designs with large sample sizes and individual intervention sessions might be established for effectiveness studies. For feasibility/usability studies, a cohort design with long-term intervention would serve best. We also

recommend a mixed method of data collection for any of three effectiveness, feasibility and usability study aims. Multiple interaction sessions running for more than one month might help researches to draw significant results and reveal the long-term impact of the robots.

507 - Stressful past events and emotional intelligence as predictors of Successful aging

Cristina Buedo-Guirado, PHD, Cristina G. Dumitrache, Laura Rubio, PhD

Abstract

Objectives. It has been widely demonstrated that recent stressful events could impact wellbeing, nevertheless it is not clear whether stressful situations experienced in the pastand the internal resources used to deal with them can also influence older adult's well- being. The purpose of this study was to evaluate the influence of stressful past events andemotional intelligence on negative affect, and to determine whether negative affect is related to older people's wellbeing.

Method. The Aging in Spain Longitudinal Study, Pilot Survey (ELES-PS) database wasused. The sample comprised 1747 participants (55.9% women), with ages between 50 to98 years-old (M = 66.2, SD = 10.6). Stressful past events were evaluated with a list of tenstressful events developed by the project team. Three items of the Trait-Meta-Mood scalewere used to assess emotional intelligence. In order to evaluate negative emotions, the PANAS scale of negative experience was used. Finally, life satisfaction was assessed using the Personal Wellbeing Index.

Results. The results of the SEM model indicated that emotional intelligence predicted negative affect, and this in turn was related to participants wellbeing. However past stressful events showed no effect on either the emotional intelligence or on participants' negative affect. Age was used as a control variable and influenced negative affect but didnot impact stressful past events.

Discussion. Internal resources such as emotional intelligence appears to be more important than stressful past events in predicting successful aging.

Keywords: stressful events, emotional intelligence, negative affect, life satisfaction, older people

508 - LATE ONSET BIPOLAR DISORDER: CASE REPORT AND LITERATURE REVIEW

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Background:

Late-onset bipolar disorder (LOBD) remains an incompletely understood nosological entity, in reason of its complexity and the paucity of research in this issue. It is not yet clear whether LOBD is a "phenocopy" of the classic early-onset bipolar disorder (EOBD), sharing symptoms but having a different aetiology, or whether both have a common underlying vulnerability that interacts with age-specific triggering factors. Some authors have proposed that LOBD is a heterogeneous entity, comprising secondary mania (including organic brain disease), bipolarity in the context of dementia-like processes (BD type VI), and LOBD as expression of a lower vulnerability to bipolarity.

Case Report:

Female patient with previous medical history of hypertension and dyslipidaemia, and psychiatric history of recurrent severe depressive episodes since early age, with melancholic and psychotic features, had a

first hypomanic episode at 76 years-old, under treatment with tricyclic antidepressant and electroconvulsive therapy. Meanwhile, she suffered a traumatic brain injury (TBI) complicated with subdural and subarachnoid hematoma, as well as intraventricular haemorrhage, which is an indirect sign of diffuse axonal injury (DAI). Later, at 79 years-old, she presented a mixed episode characterized by racing thoughts, flight of ideas, non-systematized persecutory and ruin delusions, hyposomnia, and ultradian alternation between dysphoric and depressive mood, psychomotor agitation and retardation, emotional lability, hypersyntonic contact and hostility. Medical conditions that could account for secondary mania were ruled out. This clinical picture subsided within few weeks under treatment with olanzapine and electroconvulsive therapy. After recovery memory deficits were noticed.

Concluding remarks:

This case illustrates a "latent" BD, in a patient with previous recurrent depressive disorder, manifesting the first episode of mania in late life. Several triggering factors may have contributed to this longitudinal evolution, lowering the threshold to manifest mania, namely cerebrovascular risk factors, a possible underlying degenerative process and DAI secondary to TBI, which through structural dysconnectivity also contributes to cognitive dysfunction. The deleterious effect of recurrent and severe depressive episodes on cognition is well documented. The question of whether some forms of LOBD could constitute a special risk factor for developing dementia deserves further investigation.

509 - Influence of Self-perceptions of aging and attitudes towards aging on perceived health status

Cristina Buedo-Guirado, PHD, Cristina G. Dumitrache, Laura Rubio, PhD

Abstract

Objectives. Perceived health status is an important health indicator related to successfulaging and older people's quality of life. Perceived health status depends on biological, social and psychological factors, for example, at a social level, depends on comparisons with the peer group that individuals carry out and on attitudes towards aging, ageism andhow older people believe they are viewed by society. The aim of this study was to exploreattitudes towards aging and self-perceptions of aging among Spanish middle age and older people and to identify the influence on perceived health status.

Method. The sample comprised 1,124 individuals with ages between 50 to 98 years-old (M= 64.84, SD= 10.12) from the Aging in Spain Longitudinal Study database, Pilot Survey (ELES-PS).

Results. Almost 70 per cent of the participants stated that old age begins at a specific chronological age and half of them considered that society treats older people with indifference. Self-perceptions of aging and attitudes towards aging were significant predictors that explain a 12.2% in the variance of perceived health status.

Discussion. Results from this study highlight the importance of perceptions and attitudestowards aging for older adults' health. Addressing negative self-perceptions of aging andnegative attitudes towards aging can be particularly useful because they are associated with more pessimistic expectancies about the aging process.

Keywords: ageism; attitudes towards aging; self-perceptions of aging; perceived healthstatus; cognitive functioning; physical activity

510 - EFFECT OF SLEEP DEPRIVATION ON SOCIAL RESILIENCE THROUGH ΔFOSB ACTIVATION

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Introduction:

Stress can have a variety of detrimental effects on humans. From depression and anxiety to schizophrenia, stress plays a factor in the development of these diseases through neurochemical changes in the brain and elevated levels of hormones. Among the geriatric population, decreased sleep levels are known to be a frequent issue; insomnia rates among the senior population are much higher in frequency compared to any other age group. Sleep deprivation also leads to major consequences in the brain and sleep disruption is linked to neuropsychological illness; however, the specific mechanisms involved in these effects are not understood. This study focuses on the resilient effects of ΔFosB, a protein known to mediate resilience to stress and the direct effect of sleep deprivation on ΔFosB expression in areas known to mediate resilience to social stress. We hypothesize that ΔFosB may be part of the mechanism through which sleep alters resilience to social stress.

Methods:

Mice were sleep-deprived for an eight-hour period for five days. After sleep deprivation they were subject to social defeat and underwent avoidance testing. The brains of these mice were removed, and immunohistochemistry analysis was conducted to determine ΔFosB expression in various sections of the brain.

Results:

The preliminary findings of this study indicates that sleep is altered in resilient animals and that sleep deprivation may lead to increased resilience to social defeat. The most significant decrease in ΔFosB expression was found in the prelimbic cortex, a change associated with resilience, and which was observed after chronic sleep deprivation. Contrarily, there was also an increase of ΔFosB expression in the nucleus accumbens.

Conclusion:

These findings indicate that changes in ΔFosB activation in the brain is a significant factor for promoting resilient behavior in situations of social stress. In particular, a decrease in ΔFosB activation in the PLC plays a role in explaining how sleep deprivation contributes to decreased social resilience in situations of social stress.

511 - Examining the Impact of Individualized Music for Patients on A Geriatric Psychiatry Unit

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Background: Clinicians are encouraged to use non-pharmacologic interventions first as part of the treatment of responsive behaviours due to mental health conditions. Music therapy is an example of such an intervention. In recent years, there has been an increased research focus on individualized music (IM) because it considers patient's personal music preferences. However, the findings of whether IM listening is more beneficial than general music listening has been inconsistent.

Objective: This study is to further compare the effects of IM and elevator (baseline) music listening on enjoyment behaviours of geriatric inpatients.

Methods: Fifteen participants were recruited from a geriatric psychiatry unit in an acute tertiary mental health facility in British Columbia, Canada. Their mean age was 74 years and their mean MMSE was 18. Each participant attended two 30-minute music listening sessions. Each session included a 15-minute baseline music playlist and a 15-minute IM playlist. The sequence of the two playlists was counterbalanced for each participant across the two sessions. The IM playlists were created by interviewing each participant with a personalized music preference questionnaire. The baseline (elevator) playlist was simply consisted of instrumental, non-lyrical jazz and classical music and was the same for every participant. The enjoyment behaviors during the sessions for each participant were measured by the Enjoyment Behavioral Coding Scheme (EBCS), which was developed for this project based on previous literature and was shown to have a good inter rater reliability.

Results: The average total scores of the EBCS across two sessions of IM and baseline music listening were calculated for each participant. Paired samples t-test was used to compare the scores. Though the mean total score of the EBCS for IM session was higher than that for the baseline session, the t-test showed the difference did not reach statistical significance.

Conclusion: Participants appeared to enjoy both the IM and baseline music sessions equally.

512 - The impact of the Health Crisis on the psychological feeling of patients during the second wave of Covid-19 in Geriatric wards.

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Objectives
During the Covid Health crisis, Belgium is one of the countries that currently counts a very high rate mortality among the elderly population.With more than 24,000 deaths, including more than 10 000 nursing home patients (for a total population of 11 million); this vulnerable population paid a heavy price during this pandemic. During the 2nd wave, we wanted to focus on the level of stress, anxiety, depression and loneliness among the Geriatric hospitalized population.

Methods
This prospective observational and multicentric study (CHU St Pierre and Hospital of Nivelles-Tubize) evaluated the psychological state of our patients hospitalized in Geriatrics from 16/11/2020 to 16/03/2021 (with a Minimal Mental State > 20/30) according to the Hospital Anxiety and Depression Scale (HAD) and to the Perceived Stress Scale(PSS).We also estimated their feeling of loneliness. We analysed their biographical , social and medical data as well as their Global Geriatric Evaluation. We will also observe if there are difference between patient living in Nursing Home (NH) or at home.

Results
The sample (n=81) has an average age of 85 years and is predominantly female. The majority were widows with an average of 2 children living at home

Among the 81 geriatric inpatients, 30% scored positive for anxiety, rising to 57% with questionable cases. The depression scale was found to be certain for 17%, rising to 39% if doubtful cases are taken into account .We did not observe a significant difference between the two categories for the patients living at home or in Nursing Home. For the Perceived Stressed Scale, 65% had a high stress score, 15% a moderate score and 20% a low score. It can be noted that nursing home residents also suffer more from loneliness (56%) than people living at home (35%).

Conclusion
This study confirms that the pandemic has had a deleterious effect on the mental state of our elderly during the 2nd wave despite some efforts to reduce isolation. The high mortality rate could be explained by government mismanagement, a delay in action in NH , but also by a latent ageism in Belgium which it would be good to analyze after the pandemic.

513 - Lithium monitoring in Old Age Psychiatry – a quality improvement project

Authors: E. Herridge, L. Valentine, J. Cannon, R. Novac, S. Marmion, M. Corcoran, G. Sweeney, M. Cryan, G. McCarthy, C. Dolan.

INTRODUCTION:
Lithium has a narrow therapeutic index with a risk of toxicity and potential to increase morbidity and mortality, particularly in the elderly with co-morbid illness and polypharmacy. Lithium therapy and monitoring of lithium levels require precision and several guidelines have been issued including recommendations for strict control of lithium levels in the elderly population.

RESEARCH OBJECTIVE:
We evaluated the effect of implementation of a multifaceted management programme on the compliance with international practice standards for lithium monitoring in patients under the care of Psychiatry of Old Age (POA), Sligo Leitrim Mental Health Services in the North West of Ireland.

METHODS:
Results from a prior audit performed in February 2020 involving a cohort of 18 patients prescribed lithium under the care of POA were analysed and compared to accepted standards. The guideline used as the benchmark for compliance was the National Institute for Clinical Excellence (NICE) guidelines on the use and monitoring of lithium therapy, as published in 2014. Several deficits were found and therefore a designated Lithium Management Programme was established. A subsequent audit, performed using a simplified audit tool incorporating the NICE guidelines, delivered results which were directly compared to the initial findings and analysed to evaluate the effect of the implemented management programme.

PRELIMINARY RESULTS OF THE ONGOING STUDY:
In comparison with findings from 2020, there had been a significant improvement in most facets of lithium management and compliance to practice standards. Of particular note was the improvement of biochemical monitoring, side effect screening, polypharmacy surveillance, patient education and interdisciplinary communication.

CONCLUSION:
The launch of a dedicated Lithium Management Programme with specific features aimed at identifying and addressing poor compliance with monitoring guidelines has led to improved adherence to accepted international practice standards. Our model provides a dynamic, multi-layered system which paves the way for better patient outcomes, timely access to care and furthering education for patients and staff members.

514 - Practice-based intervention to implement Person Centered care in long-term care facilities for people with Dementia

Claudia Van Der Velden, MSc, Henriëtte G. Van Der Roest

Healthcare professionals working with people with dementia (PwD) have increasingly been moving away from task-oriented models of healthcare towards person-centered care (PCC). Several studies have showed positive results of PCC on quality of life of PwD. Also, it shows positive effects on self-esteem and work satisfaction of healthcare professionals (HCP).

We developed an successful practice-oriented intervention to implement PCC in long-term care facilities (LTCFs), based on the theory of Kitwood. The intervention consists of different components and learning methods:

1) Management of the facility is trained. They have an important role in motivating HCPs and safeguarding PCC-policy in the future.
2) Dementia Care Mapping (DCM)-observations are carried out to gain understanding of the LTCF. DCM is an evidence-based observational method and aims to give a good understanding of the quality of life of PwD.
3) The training of staff starts with a Kick-off-meeting. During a 'Mirror theater' with professional actors, an act representing a familiar care situation is performed. Staff participates in the act to become aware of PCC. The kick-off also serves as a warming-up on PCC knowledge.
4) After this, staff complete an interactive e-learning on the basic theory of PCC. The e-learning contains practical videos and exercises.

5) Finally, staff follow two consecutive, practical-oriented team-trainings. They will learn what PCC means for their daily practice and how to reflect on it. The most effective part is the reflection on examples of their own clients, and get more aware of their own behavior. In between trainings, HCP will carry out a practice exercise and provide feedback in session two.

In an early stage of the intervention we discuss the possibilities and adjust the approach to the needs and situation (culture, level of knowledge etc.) of the LTCF. Involvement of all the staff in the intervention is essential, so everyone speaks the same 'language' and staff can rely on each other. Based on experience, these factors contributes to a sustainable way to implement PCC in LTCFs.

515 - Developing an observational instrument for people with somatic care needs to review Person-Centred Care in Nursing Homes
Claudia van der Velden, Elsemieke van Belzen, Henriëtte van der Roest

Healthcare professionals working with people with dementia (PwD) increasingly apply a person-centred care (PCC) model instead of task-oriented models of healthcare. Several studies have shown positive results of PCC on the quality of life of PwD. The PCC-model has not only shown positive results in the quality of life of PwD, but also for people with somatic needs.

Dementia Care Mapping (DCM) is a dementia-specific observational tool that is used worldwide in long-term care facilities (LTCFs) for developing PCC-practice, but also to review staff development- and training needs. LTCFs providing care for people with somatic needs also have the need of a instrument like DCM, but nothing specific is available. In this project we develop, together with a Dutch nursing home and DCM-Netherlands, a method that suits this target group with the same aims as DCM.

An iterative design has been applied. Based on a literature search and experience of the project group, a method has been developed. This method consists of three main components: (1)group observation with components of DCM, (2)structured interviews with residents and (3)feedback sessions with professionals and individual feedback for residents. To determine if the method meets the needs of practice, several expert groups (residents, informal caregivers and nursing staff) where asked about the content and feasibility using interviews/focus group. Furthermore in a pilot, the method will be tested by experienced DCM-mappers in practice, based on the outcomes of this pilot adjustments will be made.

We are currently in the pilot phase and expecting to finalise the method with instruction manual coming summer. First feedback of the project- and expert groups are very positive. The nursing staff endorse the need of this instrument, and also feel it contributes to a better PCC-attitude. On the other hand, they emphasize that implementation can be challenging, because of time constraints in daily care.

516 - A more integrative approach to better match treatments to long-term care residents: Preliminary results of a meta-analysis
Abstract
Author List: Ine Declercq, Ruslan Leontjevas, Susan Van Hooren, Debby Gerritsen

Background: Depression is common among long term care (LTC) residents and has a considerable impact on their quality of life. Therefore, there has been an increased interest in interventions aiming at the reduction of depression among LTC residents. These interventions could be described as formal depression care and include psychosocial interventions (e.g., Creative Arts Interventions), psychotherapeutic interventions (e.g., Life Review) and/or (neuro-)biological interventions (e.g.,

psychopharmacotherapy). Previous research on the effectiveness of formal depression care suggests that treatments should be more individually tailored. Tailoring treatments, however, is a time- consuming process which may hinder the implementation in LTC. A more integrative approach targeting specific groups of nursing home residents is therefore preferred and may benefit both residents and staff. To do so, insight in moderator effects is needed to better understand and better match treatments to specific groups of LTC residents.

Objectives: The aim of this study is to provide insight into (1) the effectiveness of interventions, (2) the influence of residents' characteristics (e.g., residents with cognitive impairment versus residents with physical disabilities) and/or (3) the influence of contextual factors (e.g., group-based versus individual therapy) which may have an impact on the effectiveness of interventions.

Eligibility criteria: Various databases (e.g., EBSCO, PubMed, COHRANE Library) are searched using a predefined search string, combining terms concerning our PICO elements (e.g., "Nursing Home Residents" (P), "Treatment" (I), "Depression" (O)). We only include a) randomized controlled trials investigating the use of formal depression treatments (independent variable), b) among LTC residents and, c) having used a standardized measurement tool for, d) depression (dependent variable). Results of this systematic search will be presented.

Method of synthesis: Eligible studies will further be screened and assessed for residents' characteristics and/or contextual factors. A random-effects model will be used to calculate the pooled standardized mean difference (SMD) and to assess the strength of the effects of formal depression treatments on depression. Further subgroup-analysis and meta-regressions will be used to assess the potential moderator effects.

Conclusion: To better match treatments to LTC residents, more insight into the effectiveness, moderator effects and core components of the applied interventions is needed.

517 - Informal and Formal Depression Care in Nursing Homes (InFormeD): Study protocol of a six month cohort study to better match treatment with residents

Abstract

Author List: Ine Declercq, Ruslan Leontjevas, Inge Knippenberg, Susan Van Hooren, Patricia De Vriendt, Debby Gerritsen

Background: Depression is common among nursing home residents and has a considerable impact on their quality of life. Therefore, there has been an increased interest in interventions aiming at the reduction of depression among nursing home residents. These interventions could be categorized into formal and informal depression care. Formal care includes psychosocial, psychotherapeutic and/or (neuro-)biological interventions. Informal care can be provided by nursing home staff, alongside the formal care (e.g., letting sunlight into the room when one believes in the positive effects of daylight). Although many studies have been done about depression treatment in nursing homes, there is still a lack of insight into the effectiveness of interventions and how they differ among specific target groups (e.g., residents with cognitive impairment versus residents with physical disabilities). Moreover, research into informal care is rather rare. More insight is needed into the effect of formal and informal depression care and the mutually reinforcing effects of those strategies on nursing home residents. This insight is essential to better match treatments with residents and to provide a more comprehensive approach to counter depression.

Objectives: The aim of this study is to gain insight in the use of formal and informal depression care and their associations with depression among nursing home residents.

Design: A six month cohort study will be conducted.

Method: Residents will be recruited in nursing homes across the Netherlands and Flanders (Belgium). To measure formal and informal care, newly developed tools will be cross-culturally validated: one to assess the provided formal care in nursing homes, two tools for measuring the used informal strategies. Depression outcomes will be measured with the Geriatric Depression Scale, Cornell Scale for Depression in Dementia, and the Nijmegen-Observer-Rated Depression-scale). Baseline measurements and cross-sectional analyses will be performed and repeated after six months. The intended associations will be assessed using multiple regression analysis.

Conclusion: To develop a good depression care policy, a more comprehensive approach is needed and may benefit both residents and staff.

518 - AUTOIMMUNE DEMENTIA – WHEN TO SUSPECT?

Author list: Filipa Caetano, Margarida Araújo, Ana Samouco, Serafim Carvalho

Background: Autoimune dementias are underrecognized clinical entities, frequently misdiagnosed as neurodegenerative or prion disorders. However, the prognosis is vastly different since immunotherapy can treat these conditions and restore functionality.

Research objective: To reflect on autoimmune dementias, briefly presenting the autoimmune syndromes, how to diagnose them and some clinical cues to be attentive of.

Methods: Literature search on Pubmed and Google Scholar.

Results: The incidence and prevalence of autoimmune dementias are unknown, but autoimmune and inflammatory causes account for 20% of dementia in patients younger than 45 years of age.
Autoimmune dementias are classified according to syndromic presentation, specific serologic markers, or histopathologic findings.

Patients with autoimmune dementias usually present with an acute or subacute disorder of memory, thinking, or behaviour. Clinical clues that can help clinicians identify autoimmune dementias include six of the following: (i) rapidly progressive or fluctuating course; (ii) multifocal and diverse clinical presentations; (iii) personal or family history of autoimmunity; (iv) detection of inflammatory markers in the cerebrospinal fluid; (v) presence of a neural-specific autoantibody and (vi) favourable response to a trial of immunotherapy. Also, unsuspected cancer, new or recurrent, may manifest neurologically as autoimmune dementia.

In evaluating patients with dementia and autoimmune disease, clinicians should be aware of the possible coexistence of these disorders.

Conclusions: Recognition of clinical and serologic clues to autoimmune dementia allows early and sustained treatment. Misdiagnosis of a potentially reversible condition as a progressive neurodegenerative disorder can have devastating consequences for the patient and family.

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519 - PET@home: Research protocol for a toolkit to improve care for non-residential long term care clients owning pets

Author List

Ruslan Leontjevas, Marie-José Enders-Slegers, Peter Reniers, Ine Declerq, Debby Gerritsen, Karin Hediger

Background

Over half of the households in The Netherlands have one or more pets. In elderly people, owning a pet is associated with a better quality of life and less loneliness, anxiety, depression and agitation. Many non-residential long term care (LTC) clients rely on support of others to take care of their pets. However, that may place a significant burden on the social support network of the LTC client. Issues relevant to keeping pets are not explicitly incorporated in the Dutch Long-term Care Act. Many LTC organizations have no instruments for care workers, clients and their family (1) to consolidate the positive role of pets for clients' quality of life and (2) to address whether it is possible to keep the pets and to organize care accordingly.

Research Objectives

To help care workers, clients and their family to gain insight into the role of the pets in the clients' life and their social support network; to develop practical instruments that help making decisions about owning and caring for pets.

Method

PLAN: In months 0-16, a narrative systematic review will be conducted (STUDY 1.1) on the meaning of pets for elderly people in general. A qualitative STUDY 1.2 with LTC clients, their informal carers and care professionals will validate and further explore the topic. STUDY 1.3 and 1.4 develop and (cognitively) validate work cards for interviews of clients and relatives by care providers. In months 17-29, an Experience based co-design method (STUDIES 2.1-2.3) will be used to develop the PET@home toolkit. The method includes (1) discovery interviews (10 clients and their family), (2) focus groups with healthcare providers (N = 2x6); (3) focus groups with 6-8 clients and informal and professional carers. In STUDY 3.1, potential users will pre-test the Toolkit. In months 30-34, a process evaluation (STUDY 3.2) is performed in 10-15 clients. A dissemination and an implementation plan will be developed.

Conclusions

The project will result in an innovative PET@home toolkit that will help to assess the pets role in the clients' quality of life and support network, and will help making decisions about owning and caring for pets.

520 - Benefits of Assertive Community Treatment for Persons with
Severe Mental Illness and Cancer
Monica Taylor-Desir

Breast cancer, the most commonly diagnosed cancer in women worldwide, is responsible for one in six cancer deaths (Sung, H. et al., 2021). Women with schizophrenia have an associated increased incidence of breast cancer compared to the general population (Grassi & Riba, 2020). Patients with severe mental illness are noted to have disparities in accessing and initiating cancer treatment especially among those who are older (Iglay et al., 2017). A case vignette will be presented to illustrate the care and interventions provided by an American Assertive Community Treatment team which fostered supportive treatment engagement and improved the quality of life for a patient that chose to forgo recommended cancer treatment. This presentation will highlight the essential nature of the Assertive Community

Treatment team in supporting decisional capacity, facilitation of a patient's grief and acknowledgement of one's own mortality as well as incorporation of medical and palliative care. The attendee will appreciate the importance of the multidisciplinary approach for persons with chronic mental illness and co-morbid cancer diagnoses.

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521 - The link between olfactory dysfunction and dementia: the road so far.
Marcela Leão Petersen, Monia Bresolin, Ariane Madruga Monteiro

Dementia is characterized by the presence of progressive cognitive impairment losses in the individual's social and occupational activities. Its etiological diagnosis has therapeutic and prognostic implications. Although its definitive diagnosis depends on neuropathological analysis, detailed anamnesis, physical and neuropsychological tests; biochemical and neuroimaging exams may enable a greater accuracy. Technological innovations using structural and functional neuroimaging methods, as well as biology and molecular genetics techniques, have presented perspectives for the early diagnosis of dementias, particularly Alzheimer's disease (AD). However, such techniques burden the diagnostic investigation, making its practice unfeasible most the times. The probable link between neurodegenerative diseases and impaired olfactory dysfunction has long been studied. It is suggested that smell tests can be used in dementia's early detection and differential diagnosis, reducing costs and facilitating the establishment of appropriate treatment. In order to verify the validity of this information, a medical literature search was carried out in may 2021 using PubMed and Cochrane Library, including the terms "olfaction" and "olfactory dysfunction" combined individually with "neurodegenerative disorder", "dementia" and "Alzheimer's disease". Only systematic reviews and meta-analyses written in English from 1991 to 2021 were included. Results show that olfactory impairment in neurodegenerative diseases worsens progressively as patients progress from mild cognitive impairment to AD. It suggests that odor tests could potentially identify AD in the preclinical stages. Although, rigorously designed longitudinal cohort

studies are necessary to clarify the value of olfactory identification testing in predicting the onset of AD and its value as an early marker of cognitive decline. In addition, AD patients are more impaired on odor identification and recognition tasks and Parkinson's Disease (PD) patients on odor detection thresholds tasks, what suggests that PD patients are more impaired on low-level perceptual olfactory tasks whereas AD patients are more strongly impaired on higher-order olfactory tasks involving specific cognitive processes. The results suggest smell tests are a cheaper, simpler to apply and a promising weapon for detecting individuals at risk of dementia.

522 - Role of Physical Environment on Quality of Life among Older Adults with Dementia in Long-Term Care Facilities in Canada and Sweden: A Longitudinal Study

Sook Young Lee, Lillian Hung, Habib Chaudhury

Reduction in competence makes older adults with dementia more sensitive to the influence of the physical environment. The aim of the longitudinal study was to examine whether residents with dementia in long-term facilities with variability in physical environmental characteristics in Vancouver (N=11), Canada and Stockholm (N=13), Sweden had a difference in their quality of life (QoL). QoL was assessed using Dementia Care Mapping (DCM) tool three times over one year for the reliability of data. DCM is a technique and observational framework devised to systematically investigate QoL from the perspective of the older adults with dementia. The results of the study demonstrated that the residents with dementia living in a homelike and positive stimulating setting showed a higher level of potential positive engagement, and less agitated and withdrawn behaviors compared to those in the large-scale institutional setting. Residents living in a large-scale institutional setting in Canada showed so far as five times more agitated/distressed behaviors and twice more withdrawal compared to the ones living in a small-scale homelike setting in Sweden. The study supports that the large-scale institutional environment was considerably associated with levels of lower quality of life among the residents with dementia.

523 - The design and implementation of Comprehensive Resilience-building psychosocial Intervention (CREST) for people with memory problems/dementia in the community: a pilot study

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Background: In Ireland, approximately 65,000 people live with memory problems/dementia (PWMP). Most live in the community, supported by informal caregivers such as relatives. A comprehensive resilience-building psychosocial intervention (CREST) to strengthen intra- and interpersonal resources was piloted by PWMP and caregiver dyads, local GPs, and the community.

Methodology: An advisory forum of PWMP, caregivers, and dementia advocacy representatives provided guidance on the intervention design and materials (e.g., interview guides), to ensure they addressed the needs of PWMP and caregivers. The 15-week CREST intervention comprised three components: cognitive stimulation therapy for PWMP (*CST*; 7 weeks), physical exercise for PWMP and partners from the community (8 weeks), and dementia education for key supporters of PWMP: caregivers (6 weeks), GPs, and the community (one-off events). Intervention processes (e.g.,

recruitment, data collection measures) were evaluated at each stage by PWMP and caregivers through qualitative (verbal feedback, interviews) and quantitative methods (ratings, questionnaires), to ensure they were feasible and acceptable.

Findings: Nine PWMP/caregiver dyads were recruited and completed the CREST intervention; attendance was consistently high (90-95%) throughout. The dyads reported that the recruitment materials, phone calls, and letters from the research team were helpful and easy to understand. Feedback from PWMP, caregivers, event attendees, and programme facilitators confirmed that th

intervention content and delivery were acceptable. Minor changes were recommended, and changes which facilitated participation by the PWMP during this pilot (e.g., giving verbal rather than written feedback, larger-print handouts) were implemented immediately. The PWMP enjoyed the CST activities (e.g., collages, tasting childhood sweets) and the "bit of fun" the group shared; some also perceived improvements in concentration and confidence. The PWMP enjoyed the group Exercise sessions, particularly the social aspects (e.g., "banter", exercising with partners), and some reported improved fitness and feeling less breathless. Caregivers felt better informed about managing dementia and communicating with PWMP and enjoyed sharing experiences with other caregivers. Attendees at the community and GP education events reported improved knowledge of dementia.

Conclusion: The involvement of the PWMP and caregivers was valuable to the iteration of the pilot CREST intervention. Consultations with both groups are ongoing to inform future research priorities.

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524 - Poststroke Depression in Greek elderly

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Introduction: Stroke is the third leading cause of death and one of the most common causes of disability and depression. Depression, which is the most common disorder after stroke, is associated with limited functionality, reduced self-care, and increased mortality.

The aim of the present study was to investigate the presence of depressive symptomatology and the degree of functionality in patients after stroke. Additionally, the relationship between the above parameters, as well as their correlation with socio-demographic characteristics and clinical factors of these patients were explored.

Method: A total of 110 patients after stroke (69 men and 41 women) with a mean age of 69.3 ± 13.7 years were recruited and completed (a) a sociodemographic-clinical questionnaire, (b) the Center for Epidemiological Studies-depression (CES-D) scale, and (c) Barthel Index.

Results: 76.4% of the participants had ischemic stroke; while the 76.4% were married and the 60% were retired. The 74.5% of our study participants were at risk for depression. 33.6% of our sample were receiving antidepressant treatment. Patients living alone had a higher depressive symptomatology score. Depression was significantly correlated negatively with patients' degree of functionality and independence. Of the participants in our sample, a percentage of 14.5% had received a disability pension, while 6.4% stated that they had no employment for health reasons, which is indicative of the disruption of their functioning.

Conclusions: The onset of depressive symptoms is common among survivors after stroke. Lonely living, as well as loss of functionality may lead to the appearance of depressive symptoms. Early detection and management of depression may facilitate patient's compliance to the rehabilitation program in order to achieve optimal therapeutic results and ensure a better quality of life.

525 - Anger expression among survivors after stroke in Greek elderly

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Introduction: Individuals may consider stroke complications as a threat to their well-being and self-esteem. Anger often occurs in patients after stroke and can disrupt the course of patient's recovery.
The aim of the present study was to investigate anger expression and degree of functionality in patients after stroke. Additionally, the relationship between the above parameters, as well as their correlation with socio-demographic characteristics and clinical factors of these patients were explored.

Method: A total of 110 patients after stroke (69 men and 41 women) with a mean age of 69.3 ± 13.7 years were recruited and completed (a) a sociodemographic-clinical questionnaire, (b) the State - Trait Anger Expression Inventory and (c) Barthel Index.

Results: 76.4% of the participants had ischemic stroke; while the 60% were retired. and the 20% of the sample showed severe to total dependence on self-care of basic parameters such as mobility, personal hygiene, feeding, incontinence and standing alone using the toilet. There was a positive statistically significant correlation between the degree of functionality and anger control. Patient, who were more independent and functional, exhibited more control of their anger. Women had statistically significant lower functionality/ independence score (BI) and anger-in score than men. Finally, patients with a history of prior stroke had higher anger-out score compared to patients with no previous history.

Conclusions: People with a previous history were more likely to suffer from greater and / or permanent functional impairment, disability, dependence, and experience emotional distress for longer periods of time. Women usually take care of other family members. Their inability to fulfill their role as well as their own dependence make the situation even more stressful, resulting in expressing anger. The results can be exploited by health professionals in order to recognize patients' difficulties in rehabilitation programs.

526 - Stroke survivor depressive symptoms and anger expression: A Literature review

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Background: After stroke, patients may have to accept and face many changes and complications that affect their quality of life. Consequently, they may feel a variety of emotions such as fear, anxiety, denial, depression, anger, rage. Depression is the most common complication after stroke. Anger often occurs in the acute phase of stroke but also during the chronic phase of the patient's recovery.

Objective: To explore the relationship between depressive symptoms and anger expression among stroke survivors.

Method: A literature review was conducted in PubMed and Scopus database.

Results: Patients, who exhibited more depressive symptoms, seemed to control less their anger. Further research has shown the effectiveness of both pharmacological and other therapeutic interventions that have a simultaneous effect on both reducing anger expression and level of depression. The way individuals express their anger remain a crucial question. There are three main categories of anger expression. Individuals may anger-out when they tend to openly express anger, usually in negative and aggressive ways, or they anger-in when they experience but suppress the open expression of anger. Finally, individuals may control their anger. The main goal of an individual in this case is to reduce and eliminate these feelings, so the expression of anger could be more controlled.

Conclusions: Given all the negative effects of post stroke depression and anger, as those emotional states are responsible for a wide range of health-related behaviors, it is important to incorporate the above concepts in both theoretical and practical fields of health sciences in order to reduce their impact and improve the quality of services provided in post stroke rehabilitation programs.

527 - Anxiety in older Greek patients undergoing hemodialysis

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ABSTRACT

Introduction: A significant proportion of patents under hemodialysis treatment manifest anxiety symptoms, which may affect compliance to treatment and quality of life.
The aim of the present study was to investigate anxiety levels of patients under hemodialysis treatment, as well as the relationship between socio-demographic/clinical factors and anxiety.

Method: A total of 105 patients with chronic kidney failure under hemodialysis treatment (64 men and 41 women) with a mean age of 72.51 ± 7.55 years were recruited and completed (a) a demographic questionnaire and (b) the State-Trait Anxiety Inventory.

Results: 58.1% of the participants were male; while the 59.6% of the participants were married and the 60.2% were retired. Our participants exhibited higher state, trait and total anxiety levels compared to general population. There were a statistically significant association between factors, including patients'

functionality, gender, physical exercise, hemodialysis complications, marital status, educational level and anxiety levels. Women exhibited a statistically significant higher state anxiety levels compared to men. Widowed participants, that is, people living alone who had experienced the loss of a beloved one, reported higher state, trait and total anxiety levels. Finally, people with higher education showed lower trait and total anxiety. Individuals who were capable of taking care of themselves reported lower state, trait and total anxiety levels with a statistically significant difference compared to those who needed external help. Additionally, those who physically exercised exhibited statistically significant lower state, trait and total anxiety levels compared to those who didn't exercise.

Conclusions: The conclusions of the present study could be a critical point in determining guidelines that would substantially contribute to the improvement of the psychological state of patients undergoing hemodialysis treatment.

528 - Health locus of control beliefs among older Greek hemodialysis patients: Sociodemographic and psychological correlates

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ABSTRACT
Introduction: Quality of life of a significant proportion of patents under hemodialysis treatment is determined by their health locus of control beliefs (internal, external, chance).
The aim of the present study was to investigate health locus of control of patients under hemodialysis treatment. Moreover, the relationship between socio-demographic, clinical, psychological factors and health locus of control was explored.

Method: A total of 105 patients with chronic kidney failure under hemodialysis treatment (64 men and 41 women) with a mean age of 72.51 ± 7.55 years were recruited and completed (a) a demographic questionnaire, (b) the Multidisciplinary Health Locus of Control Scale and (c) the State-Trait Anxiety Inventory.

Results: Internal locus of control (the degree to which participants feel they are in control of their own health) fluctuates lower, while locus of control from others (the degree that participants believe that others -doctors- control their health) and luck (the degree to which participants believe their health is a matter of luck) fluctuates higher in our participants than general population. State, trait and total anxiety levels were significantly correlated negatively with internal locus of control and positively with "chance" locus of control scale in the present study.

Conclusions: Our participants seemed to feel highly dependent from others, such as treating physicians, nurses, family, hemodialysis machine resulting in a limited sense of freedom and autonomy. Understanding health locus of control beliefs among Greek hemodialysis patients may help health professionals to implement appropriate counseling intervention programs and improve patient psychological state and provided services.

529 - Suicide in elderly people

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Background: Suicide is a tragic and distressing phenomenon. The problem of suicide in late life is often neglected by medical professionals, policy makers and the general public. Suicidal behavior in older adults (65 years old and over) is a major public health issue in many countries. Suicide rates are highest among the elderly.

Objective: To investigate the main factors associated with suicidal ideation, attempts and completed suicide among the elderly.

Method: A literature review was carried out in PubMed and Scopus database.

Results: Depression is the most relevant cause found, combined with chronic physical suffering, loss, bereavement, abandonment, loneliness, family conflicts and social exclusion. Differences in gender, ethnicity, the ageing process, social issues and cultural backgrounds are also major contributing factors. The major causal factors for attempted suicide are degenerative and chronic diseases, physical dependence and disability, physical and psychological pain, mental and neurocognitive disturbances and suffering. The issue of suicide prevention in the elderly is also addressed.

Conclusions: The negative effects on families, friends and communities following a suicide reinforce the urgency for a better understanding and prevention of suicide. Suicide associated with depression in the elderly can be prevented, provided the person is properly treated. Innovative strategies should improve resilience and positive aging, engage family and community support networks, reach vulnerable older adults, and promote health professionals' knowledge on elderly suicide.

530 - The effects of lithium and inflammation on the atherosclerosis of older bipolar patients at high risk for cardiovascular disease

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Background: Atherosclerosis can result in serious cardiovascular disease (CVD) and is associated with inflammation and psychopharmacological treatment in bipolar disorder. We attempt to investigate the effects of lithium and inflammation on the atherosclerotic development in older bipolar adults at high risk for cardiovascular disease.

Methods: The euthymic out-patients with bipolar I disorder aged over 45 years and concurrent endocrine or cardiovascular disease were recruited to measure their bilateral carotid intima media thickness (CIMT) and circulating levels of lithium, valproate, sTNF-R1, sIL-6R, and lipid profile. All clinical information were obtained by directly interviewing patients and reviewing all medical records.

Results: Forty eight patients with mean 48.3 years old and mean 27.2 years of age at illness onset were recruited. After controlling for the body mass index, multivariate regression analyses showed that older age, lower lithium level, and higher plasma sTNF-R1 level were associated with higher CIMT and collectively accounting for 33.1% of the variance in CIMT. Blood level of low density lipid or valproate has none relationship with CIMT.

Conclusion: Lithium treatment may protect older bipolar patient, even those at high risk for CVD, from atherosclerotic development. Furthermore, persistent inflammatory activation, particularly macrophage activation, may be associated with the accelerating development of atherosclerosis.

531 - Dementia prevention and utilising the "teachable moment" in the New Zealand context

Bronwyn Copeland, MBChB, Cheryl Collier, Jessica Braim

Dementia is a debilitating disease with wide-reaching impacts. Up to 40% of dementias are estimated to be preventable through modifiable risk factors, which is essential as no disease-modifying treatments are currently available. A literature review was performed using the OVID database, Google Scholar, and following references. Dementia as a key word was combined with the following key words: education, prevention, risk reduction, risk perception, family members, adult children, health promotion, behaviour change, Maori Health, health literacy, healthy aging, behavioural intervention, attitudes, teachable moment, psychoeducation.

This presentation discusses that while evidence for dementia risk reduction is present inacademia, the general population's dementia health literacy remains inadequate. The teachable moment offers an alternative to this by targeting individuals at higher risk and most receptive to behavior change, namely the family members of the patient diagnosed with dementia. It is showing promise thus far in other health contexts such as smoking cessation.

New Zealand Māori represents a vulnerable population who are over-represented in statistics for increasing dementia risk. A challenge is how this teachable moment can be utilized in the Māori population in a culturally appropriate way. Interventions need to utilize more effective methods than mass public education. We suggest that utilizing the teachable moment of a family member's dementia diagnosis would prove more effective.

We propose that the Maori model of health, "Te Whare Tapa Wha", created by Mason Duriein 1994, encompasses this aspect of prevention in the family members of those with dementia which is often neglected in an old age psychiatry context. This model is createdwith taha tinana (physical), taha Whānau (family/social), taha wairua (spiritual), and taha hinekaro (mental/emotional components). It is based on a whare (house) structure where the different principles make up the walls. All walls are needed for a sturdy structure, demonstrating the importance of all the aspects concerning Māori health. This model not only is important for Maori, but has important lessons for all New Zealanders and the importance of Whanau (family) in people with dementia, not only in terms of caregiver support but also in terms of the teachable moment and dementia prevention.

532 - "Mapping the Lived Experiences: The Dyad Journey of People with Agitation in Alzheimer's and Their Care Partners"

Presenter(s) Mary Chi Michael

Organization(s)
- Chair, The Global Council on Alzheimer's Disease
- Vice President of Patient Advocacy and Stakeholder Management, Otsuka America Pharmaceutical, Inc.

Abstract (400 words)
A substantial amount of analysis has been dedicated to understanding the individual journeys of the "patient" and the "caregiver" in Alzheimer's disease. This work has provided valuable insights, but a few priorities remain:

- how is the lived experience journey in Alzheimer's shaped by the complexities of agitation and other behavioral aspects of the disease;
- how can insights from "social listening" analysis structure our understanding of these journeys;
- how can we understand the dyad journey of the person with Alzheimer's and the care partner as well as the interactions therein, particularly through the lens of agitation.

This project, "Mapping the Lived Experiences" recasts the Alzheimer's journey to better reflect these priorities. We offer a visual interpretation of the journey with the rationale and proof points that underpin it.

"Mapping the Lived Experiences" prioritizes agitation and other behavioral aspects of Alzheimer's as pivotal, enduring challenges on the disease journey. We frame the journey into two overarching phases: "the first loss," which accounts for the more widely recognized symptoms of the disease, such as memory loss and declining cognitive function; and "the second loss," which is characterized by agitation and behavioral aspects of the disease. We structure the journey around "milestone moments" – moments when both the person with Alzheimer's and the care partner recognize that the disease has taken a major progression.

The "milestones" moment framework reflects an interpretive framework developed through an ongoing "social listening" research project. This social listening research allows analysis of the online conversation as it is happening in social channels and discussion boards, and it provides a poignant counterpoint to quantitative market research insofar as it illuminates the unfiltered, unmitigated experiences as articulated by the people who are learning in real-time to manage and live with Alzheimer's. From social listening insights and analysis, our research posits that journeys – for both the person with Alzheimer's and the care partner – are not linear, straight-line trajectories, but jagged, fragmented paths marked by "milestone moments" that shape thinking, understanding, and behavior.

"Mapping the Lived Experiences" offers a dyad visualization and articulations, as it fuses the journeys of the person with lived experience and the care partner together in the same visual space. This approach reveals how, over time, these journey relate, inform, and ultimately depart from one another. This dyad offers new insights into both the lived experience and care partner journeys.

533 - "Agitation and End-of-Life: Towards an Advance Directive that Prepare for Agitation and Behavioral Symptoms in Alzheimer's Disease"

Presenter(s) Mary Chi Michael

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Abstract (400 words)
Advance Directives provide legal documentation of a person's wishes regarding medical treatment and care, allowing people and their families to decide in advance how care and treatment should be provided at end-of-life when a person is no longer capable of making independent decisions. For people living with advanced stages of Alzheimer's, Advance Directives give specific, life-altering instructions to ensure a person's will is being met. Yet Advance Directives that anticipate for the eventualities of Alzheimer's Disease often fail to specifically prepare for the care and treatment decisions prompted by agitation and other behavioral aspects of the disease. This is a major oversight.

"Agitation and End-of-Life: Towards an Advance Directive that Prepare for Agitation and Behavioral Symptoms in Alzheimer's Disease" proposes a framework for how Advance Directives can prepare for the unique decisions that arise as a person experiences agitation and other behavioral symptoms of Alzheimer's.

The framework proposed in this project draws from the recent development of Psychiatric Advance Directives led in part by the American Psychiatric Association, which have pioneered the use of Advance Directives for anticipated behavioral challenges. Specifically, Psychiatric Advance Directives allow individuals to specify in advance which treatments may be administered in response to acute episodes of psychiatric illness at a time when someone is unable or unwilling to provide consent. Our project contends that the mechanisms underlying Psychiatric Advance Directives be modeled but modified to help people, families, and providers prepare for agitation and the behavioral aspects of Alzheimer's.

Specifically, we propose a four-part framework for Advance Directives to prepare for agitation and other behavioral aspects of Alzheimer's:

1. **Psychiatric medications.** What treatments may – or may not – be used to manage agitation or other behavioral disturbances?
2. **Agitation prevention and de-escalation.** What strategies and techniques can caregivers employ to mollify agitated behaviors? How should caregivers respond to episodes of agitation?
3. **Lifestyle preferences and values.** What values – religious or otherwise – should guide care and treatment?
4. **Information sharing and access.** When and how should caregivers, medical professionals, and family members be notified – or share information about – behavioral disturbances?

It is well established in the scientific and medical literature that agitation and behavioral aspects of Alzheimer's can cause severe difficulty for families as the disease progresses. Advance Directives that prepare for agitation can help to create a plan and ease the challenges prompted by agitation and other behavioral aspects of Alzheimer's.

534 - Grief in de elderly and its impact

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Introduction With coronavirus disease 2019 (COVID-19) a lot of people have succumbed and older adults were disproportionately affected. (1,2) Also, grief is encountered frequently in clinical practice with the elderly, and can be defined as the natural response to the death of a loved one. Still, when a failure of adaptation occurs then a Prolonged Grief Disorder (PGD) can be diagnosed, which has been recently included in ICD-11. The principal feature of PGD is a persistent preoccupation or an intense longing for the deceased that lasts longer than 6 months after the death. (3)

Objective: Comprehend the grief in the elderly and its implications in their health.

Method: The author conducted a literature review by searching the Pubmed database using the keywords elderly; grief; complicated grief; covid-19

Results: PGD is relatively prevalent among the elderly and has been associated with some variables related to the death time of the deceased, being the prevalence inversely correlated with the deceased's. (4, 5) Additionally, older adults present a higher risk of developing PGD when they are less

educated, male, have poorer cognitive performance, and a history of depression. (3) PGD is characterized by sadness, fascination with or excessive avoidance of the memories associated with the deceased, the memory of the loss and mental ruminations about death. According to some investigations, PGD reduces life expectancy, increasing the odds of death, causes severe behavioural symptoms, and is associated with longer-term functional impairment. (4,5)

Conclusion: Given these results, it is easy to understand the need for a closer monitoring of these patients during this global crisis. Moreover, it is also important to find new ways to do that while complying with COVID-19 rules and restrictions. A short-term evidence-based intervention for PGD effective in the elderly is based on support focused upon these seven themes: understanding their grief, managing emotional pain, thinkingabout the future, strengthening their relationships, telling the story of the dead, learning to live with reminders of the deceased, and connecting with memories. (3)

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535 - Loneliness and social isolation in attendees of a Psychiatry of Old Age Service in the North West of Ireland: preliminary findings of a cross-sectional study during the COVID- 19 pandemic.

Author List

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Aims and Hypothesis

The primary aim is to establish the prevalence of loneliness and social isolation in older adults referred to a Psychiatry of Old-Age Service in the North-West of Ireland. Secondary aims include exploring associations between loneliness, social isolation and, well-being, depression, cognition and health-status. The overarching aim was to improve patient outcomes by tailoring mental health and social interventions appropriate to patient need.

Background

Loneliness is a discrepancy between the social-relations one has and their desired level. It is estimated that one third of older adults will experience loneliness, which along with social isolation has links to poorer health-outcomes, reduced quality of life and cognitive decline. Government advice in Ireland to reduce social activity due to COVID-19 pandemic may compound social disconnection. We present preliminary findings of an ongoing study investigating loneliness, social isolation and related factors in older adults referred to a Mental-Health Service in the North-West of Ireland in 2020 - 2021.

Methods

Using a cross-sectional study design, participants completed University of California, Los-Angeles(UCLA) Loneliness Scale (UCLA maximum score =10); and Berkman-Syme Social Network Index. Quality of life is measured using WHO-Well-being Index(WHO-5) with a number of relevant personal, clinical and social factors also captured.

Results

Data from 98 questionnaires (January 2020- May 2021), 52% female, showed average participant age was 74.4 years. Average perceived loneliness score was 3.67 and 85.7%, (n=84) reported some loneliness (UCLA >0) with 2% (n=2) reporting high loneliness levels (UCLA =10). The majority, 77.5% (n=76) were socially isolated; 35.7% (n=35) 'mostly isolated', 41.8% (n=41) 'moderately isolated'. Females were noted to be more isolated.

Conclusions

Preliminary results illustrate majority of older adults referred to a mental-health service over a time-period spanning COVID-19 pandemic are lonely and socially isolated. This is likely compounded by changes to daily routines during COVID-19 pandemic. This is concerning given the adverse health implications. We hope final results will guide enhancement of clinical-care through linkage of mental-health services with community agencies, social-care supports and e-health technologies.

536 - Moderating effect of the COVID-19 pandemic on the efficacy of cognitive stimulation. A controlled trial.

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Background:
It´s been proved that cognitive stimulation (CS) has direct effects over the improvement of general cognitive functions in people with cognitive impairment (PCI). The restrictions in daily life associated to COVID-19 pandemic had an impact in the quality of life of PCI and it might have affected the efficacy of the CS programs targeting this population.

Research Objective:
To analyse if there was a moderating effect of the pandemic on the efficacy of CS programs.

Method:
Participants were enrolled in a public memory clinic; 213 PCI were assigned to two groups: 173 received CS treatment before the pandemic (PRECOVID) and 40 received CS during the pandemic (COVID). Pre and post assessments were carried out with the Mini Mental State Exam (MMSE), the clock-test and the brief Geriatric Depression Scale. The treatment consisted of 32 sessions of CS held twice a week during 4 months. No significant differences ($p < .05$) were found between groups at baseline in age (74.46±7.80 years), cognitive function (MMSE=23.43±3.30), gender (58% women) and the remaining variables.

Preliminary results of the ongoing study:
After treatment, both samples improved in depression (t = 4.56, p < .05), the COVID group improved in MMSE (t = -3.40, p < .05) and clock-test (t= -3.78, p < .05), the rest of the changes were not significant. Between group effect sizes favoured the COVID group intervention for MMSE (d_c = 0.74) and the clock test (d_c = 0.48). No between group differences were found for depression (d_c = -0.48).

Conclusions:
Older people participating of CS during the pandemic benefited more from the treatment than those participating before the pandemic. This apparently contradictory result might be explained by the context of lack of social, emotional and cognitive stimulation associated to the restrictions inherent to social confinement. The continuity of CS care to PCI is essential in the context of generalised restrictions in daily life associated to COVID-19 pandemic and might play an important role in preventing cognitive loss and associated disabilities.
Key words. Cognitive Stimulation. Cognitive impairment. COVID-19. Older people.

537 - Reported and observed task performance in dementia and the role of the carer management style

Julieta Camino, Mizanur Khondoker, Naoko Kishita, Eneida Mioshi.

Background: Consistency between carers' report of the people with dementia's (PwD) performance of activities of daily living (ADLs) and observed performance has been an important topic in the literature, but most studies have investigated whether carer's burden and depression affect this report.

Objectives: To (1) investigate if carer's report of PwD's performance of ADLs is consistent with PwD's observed performance; and to (2) evaluate if carer management style has an effect on this discrepancy.

Methods: Sixty-four PwD completed a performance-based ADL assessment (Assessment of Motor and Process Skills-AMPS) which entails the observation of ADL performance; their carers were interviewed using an informant-based ADL assessment (DAD), which records ADL performance as reported by the carer. Carers completed a dementia management-style scale (DMSS) that categorises the carer's style in: criticism, active-management and encouragement. To investigate whether there was consistency between the DAD and the AMPS, a new continuous variable was created: the *comparative ADL score*. Cohen's kappa was used to compare agreement/disagreement between the DAD and the AMPS. Multiple regression analysis explored whether carer styles could explain the discrepancy between the reported and observed performance of ADLs.

Results: The majority of carers underestimated (71.9%) or overestimated (17.2%) (disagreement) the PwD's ADL performance; only 10.9% of carers reached an agreement between reported and observed performance. Cohen's kappa [k= -0.025 (95%CI -0.123 – 0.073)] indicated poor level of agreement between the DAD and the AMPS. Criticism, active-management and encouragement styles were included in the regression model: the *comparative ADL score* was used as the dependent variable. This combined model explained 18% (R^2=0.178,$F_{(3, 59)}$=4.26,p=<0.01) of the variance of the dependent variable. Active-management (β =0.037, $t_{(62)}$=3.554, p=0.001) and encouragement (β =-0.024, $t_{(62)}$=-2.086, p=0.05) styles were the two factors that made the largest and statistically significant contribution to the model.

Conclusions: the disagreement between the reported and the observed performance proved to be high in this group. The styles that carers use when dealing with dementia-related problems affected their report of ADL performance, which means that the strategies applied by carers to support ADL performance can be targeted to reduce the gap between reported and observed performance.

538 - Approach to Understanding the 'Meaning' of Behaviors in NCD: Beyond PIECES and GPA. Luthra's Behavioral Assessment and Intervention Response Paradigm (LuBAIR™ Paradigm). *Dr. Atul Sunny Luthra, MD, MSc (Pharmacology), FRCPC*

ABSTRACT

Background: With the incidence, prevalence, and cost of dementia care expected to rise, it has become crucial to develop a practical approach for managing behaviors in dementia. Presently non-pharmacological interventions, both interpersonal and environmental, are the gold standard for managing Behavioral and Psychological Symptoms of Dementia (BPSD). The purpose of the presentation is to reveal the reasons for paucity in developing effective pharmacological treatments for BPSD in moderate to advanced dementia and propose a new theoretical framework for labeling and classifying behaviors in moderate to advanced dementia. The LuBAIR paradigm will be less labor-intensive, more comprehensive, and improve the categorization of behaviors into clinically meaningful categories. It wa also found that the LuBAIR Inventory has comparable inter-and intra-rater reliability and Construct and Criteria validity in comparison to BEHAV-AD and Cohen-Mansfield Agitation Inventory (CMAI).

Methods: The literature on BPSD reviewed, focusing on terminology, models of behaviors, and identified deficiencies in both.

Results: Terminology to describe moderate to advanced dementia behaviors lacks consistency, accuracy, and reliability in both research and clinical settings. Standardized scales currently utilized to diagnose clinical conditions also lack validity and reliability in moderate to advanced dementia. Models for understanding the occurrence of behaviors in dementia are dichotomized along the biological versus psychosocial paradigm. The reliability and validity of the LuBAIR Inventory were established in an earlier study and workshops, where it found that the LuBAIR was less labor-intensive, more comprehensive, and offered improved categorization of behaviors into clinically meaningful categories. It was also found that the LuBAIR Inventory has comparable inter-and intra-rater reliability and Construct and Criteria validity in comparison to BEHAV-AD and Cohen-Mansfield Agitation Inventory (CMAI).

Conclusions: Deficiencies in existing terminology, assessment scales, and models are acknowledged. There are twelve newly formed behavioral categories to classify behaviors in moderate to advanced Dementia. These categories were used to develop a new behavioral assessment inventory titled LuBAIR (Luthra's Behavioral Assessment and Intervention Response). The LuBAIR model will help clinical staff to understand the 'meaning' of behaviors in persons with Dementia (PwD).

Keywords: Dementia, Behavioral Symptoms, Classification, Stage Congruent Response Behaviors, Biological Factors, Personal Factors, Environmental Factors

539 - The association between olfactory dysfunction and psychiatric disorders

Marcela Leão Petersen, Monia Bresolin, Ariane Madruga Monteiro

It is known that olfactory dysfunction occurs early in neurodegenerative diseases, such as Alzheimer's and Parkinson's diseases and frontotemporal dementia (FTD). Dementia and psychiatric disorders share a number of clinical features, such as psychosis and depression. As such, misdiagnoses across these conditions are not uncommon. A variety of studies show smell dysfunction in schizophrenia, but little is known about other psychiatric disorders. In order to verify the link between olfaction and psychiatric disorders, a medical literature search was carried out in may 2021 using PubMed, and Cochrane Library, including the terms "olfaction" and "olfactory dysfunction" combined individually with "psychiatric disorder" and "depression". Systematic reviews and meta-analyses written in English from 1991 to 2021 were included. Even thought one review suggested that patients with depression have reduced olfactory performance when compared with healthy, results show studies with different methodology and design which makes it difficult to reach definitive conclusions as how and if olfactory functioning is related to

depression. Further studies with the same methodology that examines and separates central and peripheral olfactory processing are needed. Another review showed robust olfactory deficits in schizophrenia and at-risk youths, what indicates that olfactory measures may be a useful marker of schizophrenia risk status. Finally, a systematic review compared olfactory function in FTD, depression, schizophrenia and bipolar disorder. Results revealed that odor identification but not discrimination was severely impaired in FTD, both were impaired in schizophrenia, while no olfactory impairments were observed in depression. Findings in bipolar disorder were mixed. This review showed that testing odor identification and discrimination differentiates FTD from depression and schizophrenia, but not from bipolar disorder. It is possible to conclude that olfactory dysfunction occurs in schizophrenia and dementia but not in depression.

540 - COGNITIVE STIMULATION THROUGH OROICOGNITIVE, A VIRTUAL REALITY APP FOR OLDER PEOPLE

Adriana Gómez, Janeth Carreño, Alvaro Berroa, Ane Balenciaga

OBJECTIVE:
To analyze the effectiveness of cognitive stimulation carried out through OroiCognitive, a virtual reality app, in older people, as well as its acceptance and attractiveness to them.

METHOD:
The research was carried out with 31 participants with a number two or three in the global deterioration scale (GDS).

15 of these participants were part of the control group, and 16 of the experimental group.
The intervention through virtual reality, with exercises more similar to daily activities, allows working on attention, language, memory, orientation, visuospatial skills and executive functions.

It was carried out in 12 sessions, 3 times a week, lasting 25 minutes each one, individually.
Bouth groups were evaluated using the MINI-MENTAL Cognitive Examination and some subtest of the Weschler Intelligence Scale for adults (WAIS-IV).

RESULTS:
Regarding to the effectiveness of the stimulation, the results show significant improvements in vocabulary and information in those with GDS2, in the experimental group.

No statistically significant improvements were found in the rest of the areas. Regarding the assessment of the tool, 69% of the participants rated it as quite useful and interesting. According to the qualitative data collected by the therapists, the users were happier and more animated during and after the intervention.

541 - MRI-BASED MEASUREMENT OF HIPPOCAMPAL VOLUME IN PATIENTS WITH DEMENTIA

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Background:
- Dementia due to probable Alzheimer's disease (AD) represents between 60 and 80% of all dementias. The total number of estimated AD cases worldwide by 2030 is 65.7 million and 115.4 million by 2050; this represents a twofold population increase in the next 20 years.
- Magnetic resonance imaging (MRI) has been the primary tool of interest to link hippocampal volume loss with dementia firmly.

- MRI-based volumetry has been proposed as a promising biomarker.
- Hippocampal volumetry is useful in discriminating not only cognitively normal individuals from those with dementia but can also differentiate Mild Cognitive Impairment (MCI) from various types of dementia.

Research Objective:
1. To measure hippocampal volume in various types of dementia.
(MMSE) and Activities of daily living (ADL) in patients with dementia.

Method:
A cross-sectional study conducted for period of one year among 21 patients with Alzheimer's, vascular dementia, amnestic mild cognitive impairment and 20 healthy age matched controls. MMSE scale was used to stratify patients on cognitive function impairments. ADL scale to assess functional status of the patient ability to perform activities of daily living independently in diverse settings. Hippocampal volume measured using MRI 1.5 T Philips Ingenia, a coronal T1-weighted FFE (Fast Field Echo) 3D sequence.

Results:
Total Hippocampal volume was reduced by 35% in Alzheimer's disease, 27% in vascular dementia and 10% in amnestic mild cognitive impairment, compared with control group.

Conclusion:
Moderate positive correlation between mean total hippocampal volume and MMSE scores in patients with dementia which was statistically significant. (P value= 0.001).

542 - Development and validation of the narcissistic personality screening questionnaire (NPSQ) among Thai older adults

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Background

A screening tool for narcissistic personality disorder (NPD) in older adults is lacking.

Objective

The study aimed to develop a screening tool for detecting symptoms of the NPD and to validate its psychometric properties in older adults.

Methods

This Narcissistic Personality Screening Questionnaire (NPSQ) was developed by constructing items based on DSM-5 criteria of the narcissistic personality disorder (NPD). A literature review regarding the signs and symptoms of NPD was conducted. Interview with NPD patients, the patients' key informants, and a focus group discussion among psychiatrists, psychiatric nurses and psychiatry residents who have experience in working with patients with NPD were performed. After the items were created, the content validity index (CVI) by 1 psychologist and 1 psychiatrist was analyzed. A field trial was conducted among older adult patients visiting the psychiatry and the cardiology departments at Maharaj Nakorn Chiang Mai hospital between March and April 2021. The internal consistency using Cronbach alpha was analyzed. Item hierarchy, item difficulty, and item fit was also calculated using
Rasch analysis. Qualitative information was analyzed regarding language use and time to complete the test.

Results

Originally, a total of 80 NPSQ items with 4-Likert scales i.e., strongly agree, moderately agree, slightly agree, and disagree were generated. The CVI was 0.75-1 for item-CVI and 0.89 for scale-CVI. The NPSQ was examined among 30 Thai older adults with a mean age of 70.76 ± 6.23 years. The percent of missing items of all 80 items ranged from 2.9% to 8.9%. Cronbach's alpha for the 80-item NPSQ was

2. To determine the correlation of hippocampal volume with Mini-Mental State Examination 0.96. Rasch analysis identified 37 misfitting with a mean square > 1.50, therefore 43 items remained. Person-item map showed a good target between items and sample, even though some items may be redundant. Cronbach's alpha for the 43-item NPSQ was 0.96. Some participants were confused about who the questions referred to, which were then revised before including it in the final draft version. Only one participant did not complete the questionnaire.

Conclusion

The 43 item NPSQ shows good content validity and an excellent internal consistency among older adults. A study with a larger sample size is warranted.

543 - Cultural Considerations for Older LGBTQ Adults During the COVID-19 Pandemic: Case and Review

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Introduction

Throughout the COVID-19 pandemic, older adults have been disproportionately impacted by both illness and fatalities. Of the nearly 39 million adults over age 65 in the United States, approximately 2.4 million older adults identify as lesbian, gay, bisexual, transgender, or queer (LGBTQ). LGBTQ older adults face unique challenges due to their intersecting identities and histories, including the effects of heterosexism, ageism, and being more likely to live alone, be single, and not have children. As we implement social distancing as a primary COVID-19 prevention method, older adults have faced increased isolation.

Methods

We presented a case of a lesbian older adult patient who has experienced increased depression during the COVID-19 pandemic. A table will be added featuring culturally competent recommendations for LGBTQ older adults from a literature review.

Results

A 77-year-old female with history of major depression, attention deficit disorder, hypertension, xerostomia, and polymyalgia rheumatica. The patient has been on multiple trials of medications for depression as well as ECT treatments. She was initially engaged to a man and after some years fell in love with a woman. The patient is currently single and has no children. She typically has a strong support system with her lifelong friend and attends church. She transitioned from independent living to an adult living facility, with the hope of increased social activity and connectedness. However, due to COVID-19, she experienced her move as extremely difficult, and was disappointed that all social activities were canceled. For a period of several months, she was unable to visit her chosen family, was limited to attending church via Zoom, and was restricted from multiple areas of the complex. As a result, she reported increased depression, anxiety, and difficulty sleeping with passive suicidal ideation due to isolation and no direct family support.

Conclusion

Older LGBTQ populations are at disproportionately higher risk for mental health conditions and with the current social distancing measures in place, social isolation and loneliness has been exacerbated. Connection with accepting family and community are well documented in the literature as key protective

factors and sources of resiliency in LGBTQ populations. Culturally competent care is integral to psychiatric treatment of older LGBTQ adults.

544 - Validation of a new cognitive screening tool, the Brain Health Test-7, for identification of mild cognitive impairment and early dementia in 3 differentkinds of hospital settings

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Background
The Brain Health Test-7 (BHT-7) is a revised tool from the original BHT, containing more tests about frontal lobe function. It was developed with theaim of identifying patients with mild cognitive impairment (MCI) and early dementia.

Research objective
Here we report the validity of the BHT-7 versus the Mini-Mental State Examination (MMSE) and Montreal Cognitive Assessment (MoCA) in differentpsychiatry or neurology clinics.

Methods
Patients with memory complaints were recruited in this study from the outpatient clinic of psychiatry or neurology in 3 different kinds of hospitals. Allpatients underwent the evaluation of the BHT-7, MMSE, MoCA, and clinical dementia rating (CDR). The clinical diagnosis (normal, MCI, dementia) was made by consensus meeting, taking into account all available data.

Demographic data and the scores of the MMSE, MoCA, and BHT-7 between groups were compared. Logistic regression was adopted for analysis of optimal cutoff values, sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), receiver operating characteristic (ROC) curve,and the area under the ROC curve (AUC).

Results
We enrolled a total of 1090 subjects (normal 402, MCI 317, dementia 371); of them, 705 (64.7%) were female. There was a statistically significant differencein age, years of education, and 3 cognitive test scores among the 3 groups.

Compared with the MMSE and MoCA, the BHT-7 performed slightly betterthan MMSE and MoCA in differentiating MCI or dementia from the normalcontrols (Table 1). For BHT-7, the cutoff point was 17 between normal andMCI, and 14 between normal and dementia. These cutoff points for BHT-7were consistent through 3 different clinical settings, but inconsistent for MMSE and MoCA. The testing time for the BHT-7 was about 5-7 minutes, shorter than that of the MMSE and MoCA.

Conclusion

Compared with MMSE and MoCA, the BHT-7 showed slightly better performance in differentiating normal from MCI or dementia subjects. The testing time for the BHT-7 was shorter, and its cutoff points were consistent through different outpatient clinic settings. The results support that BHT-7 is auseful cognitive screening tool for MCI or early dementia in various hospital settings.

Table 1: Comparisons of the performance of BHT-7, MMSE, MoCA

	AUC	cutoff	SEN	SPE	PPV	NPV
Normal vs. MCI						
BHT-7	0.8532	≦17	0.8170	0.7413	0.7135	0.8371
MMSE	0.8061	≦27	0.7950	0.6883	0.6684	0.8091
MoCA	0.8316	≦25	0.8202	0.6791	0.6684	0.8273
Normal vs. Dementia						
BHT-7	0.9848	≦14	0.9434	0.9602	0.9563	0.9484
MMSE	0.9693	≦24	0.8895	0.9626	0.9565	0.9040
MoCA	0.9768	≦21	0.9245	0.9428	0.9372	0.9312
Normal vs. MCI + Dementia						
BHT-7	0.9241	≦16	0.8372	0.8458	0.9028	0.7522
MMSE	0.8941	≦25	0.7282	0.9152	0.9365	0.6625
MoCA	0.9099	≦23	0.8081	0.8532	0.9041	0.7221

545 - Exploratory factor analysis of the Rowland Universal Dementia Assessment Scale.

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Background:
Rowland Universal Dementia Assessment Scale (RUDAS) is a brief cognitive test, appropriate for people with minimum completed level of education and sensitive to multicultural contexts. It could be a good instrument for cognitive impairment (CI) screening in Primary Health Care (PHC). It comprises the following areas: recent memory, body orientation, praxis, executive functions and language.

Research Objective:
The objective of this study is to assess the construct validity of RUDAS analysing its internal consistency and factorial structure.

Method:
Internal consistency will be calculated using ordinal Cronbach's α, which reflects the average inter-item correlation score and, as such, will increase when correlations between the items increase. Exploratory Factor Analysis will be used to arrange the variables in domains using principal components extraction. The factorial analysis will include the extraction of five factors reflecting the neuropsychological areas assessed by the test. The result will be rotated under Varimax procedure to ease interpretation.
Exploratory factor analysis will be used to arrange the variables in domains using principal components extraction. The analysis will include Kaiser–Meyer–Olkin measure of sampling adequacy and Bartlett's test of sphericity. Estimations will be based based on Pearson's correlations between indicators using a principal component analysis and later replicated with a tetrachoric correlation matrix. The variance in the tetrachoric model will be analysed to indentify convergent iterations and their explicative power.

Preliminary results of the ongoing study:
RUDAS is being administered to 321 participants older than 65 years, from seven PHC physicians' consultations in O Grove Health Center. The data collection will be finished by August 2021 and in this poster we will present the final results of the exploratory factor analysis.

Conclusions:
We expect that the results of the exploratory factor analysis will replicate the results of previous studies of construct validity of the test in which explanatory factor weights were between 0.57 and 0.82, and all were above 40%. Confirming that RUDAS has a strong factor construct with high factor weights and variance ratio, and 6-item model is appropriate for measurement will support its recommendation as a valid screening instrument for PHC.

Key words. Cognitive impairment. Screening. Neuropsychology. Primary Care. Test. Exploratory factor analysis. Construct validity.

546 - Attachment, loneliness, and depression among residents in long-term care (LTC) homes
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Background: Little is known regarding attachment styles among residents in long-term care homes and the relationship with depression and loneliness

Research Objective: The study evaluated the distribution of attachment among residents in long-term care (LTC) homes and identified their association with depression and loneliness.

Method: This study involved 132 residents in LTC homes in Thailand. All of them were cognitively intact based on Mini-Cog. The Thai version of the Experiences of Close Relationships-Revised questionnaire (ECR-R-18), the Relationships Questionnaire (RQ) were used to assess attachment. The Thai version of Geriatric Depression Scale (GDS-6) and the 6-item Revised version of The University of California Los Angeles Loneliness Scale (RULS-6) were completed.

Preliminary results of the ongoing study: Participants included 85 females (64.4%) with mean age 74.89 (SD 7.89) years. The mean number of years of education was 6.81(SD 4.46) years. Most of the attachment styles were insecure (60.7%). The distribution of attachment style was 39.4% for secure, 15.2% for fearful, 16.7% for preoccupied, and 28.8% for dismissing. The mean score of attachment-anxiety was 3.58 and of attachment-avoidance was 3.61. Mean GDS score was 1.17 (SD 1.58), while depression based on the GDS cut-off was found in 31.1% of the residents. Mean RULS score was 2.36 (SD 0.75). Factors associated with Depression includes male (c^2= 4.50, p <.05), anxious attachment (t = 3.51, p = 0.001) and loneliness (t = 4.90, p <0.001). Anxious attachment was associated with loneliness (p <0.001) and depression score (p <0.001), while avoidant attachment was not.

Conclusion: The majority attachment style among residents in LTC homes is insecure attachment, with dismissing style the most prevalent. Attachment with high anxiety i.e., preoccupied, and fearful was associated with loneliness and depression.

547 - BDNF and cognitive function in Alzheimer's disease

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Relevance: Alzheimer's disease (AD) is a neurodegenerative pathology that develops mainly in elderly and senile people.

Disruption of BDNF transport or suppression of its production appears to be typical for people of old age. Objective: To investigate the influence of Alzheimer's disease on the secretion of brain factors and correlate with neuropsychological profiles.

Material and methods of research: 12 men (2) and women (10) with Alzheimer's disease were examined. The average age of the subjects was 76.25 + 4.89. Methods: MMSE, ADAS-COG, laboratory - BDNF was performed using the G7611 BDNF Emax (R) ImmunoAssaySystem 5 x 96 wells, BDNF Emax® Immunological test.

Results: 2 patients have mild dementia, 8 patients have moderate dementia, 2 patients have severe dementia. The average age of patients with mild dementia was 72.0 + 1.0. The average MMSE score is 16.7 + 3.4. Correlation analysis showed a close relationship between a pronounced decrease in memory in memory tests (ADAS-COG) and a pronounced decrease in blood BDNF content (r = 0.676). A close statistically significant relationship was found between a low result of the recognition test and a low blood BDNF content (r = 0.598).

Conclusion: we assume that blood BDNF is a marker of pathologically accelerated aging of the central nervous system, since low test results for mnestic function are an indicator of severe degeneration in Alzheimer's disease.

548 - Cognitive aging and cognitive reserve

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Introduction. The aging processes are accelerating in all regions of the world. The involvement of older people in production and social processes determines the need to maintain a high level of social and psychological adaptation, despite the progressive pathology of the brain caused by its aging. This increases the relevance of research related to the study of biological reserves of the brain and psychological and social mechanisms of human adaptation in late adulthood. The risk of developing cognitive disorders is not fatal. According to some observations, even in the hippocampal type of UKR, despite the content of amyloid in the brain, the functional and social activity of the elderly remains high. Prospective studies show that people with high cognitive reserve have a lower risk of developing dementia. Cognitive reserve is the brain's resistance to damage. Cognitive reserve is the ability of the brain to cope with the consequences of damage caused by external influences, brain stroke, chronic brain ischemia, neurodegenerative diseases, and age-related changes. Cognitive reserve is the brain's ability to functionally compensate for and minimize clinical manifestations of cognitive impairment. The mechanisms of cognitive reserve in normal and Alzheimer's disease are different. In healthy older adults, a higher cognitive reserve correlates with larger brain sizes and effective strategies for performing cognitive tasks. In the early stages of Alzheimer's disease and Alzheimer's disease, the size of the brain decreases. But high brain activity helps preserve cognitive resources. Excessive brain activity in dementia is a compensatory mechanism. This is confirmed by the results of functional magnetic resonance imaging of the brain. Of course, the degree of brain atrophy is a predisposing factor for dementia, but it is not a mandatory factor for cognitive decline. So, the symptoms of dementia do not appear until you have crossed the critical border of damage to the brain substance. Progressive brain atrophy underlies the clinical manifestations of dementia in neurodegenerative diseases, but the correlation between the degree of brain damage and cognitive impairment is not linear.

Research materials and methods. An observational 10-year longitudinal study was conducted. In 2006, moderate cognitive impairment was found in 66 patients. The group of patients included 49 women and 49 men. Their average age in 2006 was 59.3 ± 5.2 years. In 2006, the severity of cognitive decline was 26.2 ± 1.9 points on the MMSE scale. This corresponds to indicators of moderate cognitive impairment. Research methods: clinical and psychopathological, psychometric, statistical. Questionnaire "Loss and acquisition of personal resources" (N. Vodopyanova, M. Stein), MMSE scale.

Research result. In 2006, amyloid was detected in the spinal fluid of all patients selected for the study group. If a patient developed dementia, they were given specific therapy. The dynamics of cognitive functions in patients was different. Mild dementia was formed in 53% of patients. Moderate dementia was formed in 10.6% of patients. Moderate cognitive impairment (pre-dementia) persisted in 36.4% of patients. Hereditary burden of dementia in patients with moderate dementia was detected 2 times more often. Back in 2006, we identified the leading sensory systems of patients. The master sensor system determines the modality of the main information flow. This is the most important part of the information that a person interacts with. This is the basis of interaction with reality. This is the basis of cognitive functions. Correlations of age-specific lesions of the corresponding sensory systems with the severity of cognitive decline were found in patients with the corresponding sensory modality (Spearman's Correlation Coefficient-r, $p<0.05$): presbyacoussis – auditory $r=0.667$, presbyopia-visual $r=0.705$. The influence of psychosocial factors on the condition of patients was studied. In dementia, significant history of psychotrauma was found in 35.7%. Moderate stress was detected in the group of patients with moderate cognitive impairment in 33.3%. Moderate stress was detected in the group of patients with dementia in 83.3%. Stress of loss of life meaning was detected more often in patients with dementia 76.7%. It is important not only what stresses a person endures, but how they can cope with them. Dementia patients were statistically more likely to have unproductive coping strategies that did not help them cope adequately with stress.

Conclusions. The concept of cognitive reserve suggests possible causes of heterogeneity in the dynamics of cognitive decline in the initial stages of atrophic-degenerative brain diseases: biological causes and psychosocial causes. The concept of cognitive reserve helps to study and develop individual programs for the prevention of severe cognitive disorders.

549 - Psychosocial factors in the formation of non-cognitive symptoms of dementia
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Background: The growing prevalence of severe cognitive impairment in populations, the involvement of a significant number of people of working age in the medical, economic, psychological and social problems associated with late dementia, the insufficiency and inconsistency of information about the mechanisms of formation of these disorders actualize a comprehensive medical and social study of dementia.

The goal is to study the psychosocial mechanisms of the formation of clinical, functional disorders in dementia, to develop comprehensive medical and psychosocial programs to help patients with dementia and those involved in caring for them, based on the proposals of the psychosocial model of dementia.

Methods: A selective observational comparative dynamic study of 315 people with Alzheimer's dementia and 214 people who care for the patients was carried out. The study used clinical, clinical, psychopathological, neuropsychological, psychometric, sociometric, and statistical research methods.

Results: An increase in the severity of dementia contributes to a significant ($p < 0.05$) increase in the number of patients in a dependent position in the family. The appearance of psychotic (painful ideas [r = 0.589]), behavioral (agitation / aggression [r = 0.654]), affective (anxiety [r = 0.536], unstable mood / irritability [r = 0.581]) symptoms of dementia contribute to family role changes structure and increase interpersonal distance in the dyad "caretaker - patient." Decreased functional activity of the patient (r = 0.758), development of behavioral disorders (aberrant behavior [r = 0.675], agitation / aggression [r = 0.713], impaired night behavior [r = 0.597]), affective symptoms (anxiety [r = 0.685]) contribute to aggravation of the distress of the caregiver. Those who provide unprofessional care for dementia patients in a statistically significant ($p < 0.05$) majority of cases have a high level of emotional involvement in the care process. Changes in family-role and social parameters, a high level of "expressed" emotions of caregivers have an adverse effect on the development of psychotic (r = 0.618), affective (r = 0.701), behavioral (r = 0.837) dementia disorders. The degree of adherence to anti-dementia therapy by the caregiver is one of the important factors determining the amount of care received by the patient (r = 0.698). Agitation / aggression (r = 0.761), anxiety (r = 0.562), sleep disturbances (r = 0.521) contribute to increased compliance. The low satisfaction of the caregiver with premorbid (r = 0.698) and current (r = 0.653) relationships with the patient leads to a decrease in the compliance of the caregiver.

Conclusion: It was revealed that the formation of cognitive impairment is caused by biological factors, their severity depends on the severity of dementia. The mechanism of psychopathological symptoms, functional disorders is heterogeneous, depending on the biological causes and psychosocial conditions of functioning of patients.

550 - Caregiver Burden and Geriatric Patients Undergoing Electroconvulsive Therapy in the COVID-19 Era

Valeriya Tsygankova, Maria A. Grullon, Bobbi Woolwine, Ashley Subler, Parker Schwab, Adriana Patricia Hermida, MD

Introduction

Caregivers are essential in providing valuable patient information to medical providers. With limited available research investigating caregiver burden among those caring for patients receiving ECT and the new life challenges presented by the COVID-19 pandemic, it is more important now than ever to take a closer look at the caregivers' experiences.

Methods

Emory's Wesley Woods Geriatric Hospital is one of the busiest ECT services in the country with around 2000 treatments completed every year. In this chart review, researchers are looking at caregivers' responses to the Zarit Caregiver Burden Interview. This assessment includes 22 questions assessing the caregivers' current emotional state in order to examine the impact of the patient's condition on

caregiver wellbeing. The score ranges from 0 (no burden) to 88 (severe burden). Other objective assessments completed with ECT patients are BDI (Beck Depression Inventory), BDI Suicide, Sheehan Disability Scale, ECCA (Electrocompulsive Cognitive Assessment), GAD-7 (Generalized Anxiety Disorder Scale), and CGI (Clinical Global Impression). The purpose of this chart review is to investigate whether the higher severity of depression in patients correlates with higher levels of caregiver burden and whether the pandemic contributed to caregiver burden.

Results

The Zarit Caregiver Burden Interview has been administered on twelve caregivers (n=12; 6 male and 6 female), all providing care for patients currently undergoing ECT for depressive symptoms. Out of the twelve caregivers, 66.6% reported little caregiver burden, 16.6% reported mild to moderate burden, and 16.6% reported moderate to severe burden. Additional patients are being interviewed in the ECT suite and further data collected will be presented at the 2021 IPA Virtual International Congress.

Conclusion

As the world adjusts to life in the COVID-19 era, caregivers face new challenges in providing care for vulnerable, at-risk populations. Caregivers of patients receiving ECT facilitate frequent COVID testing and limited visitation policies while continuing to provide care and emotional support to patients with advanced age and a mental illness. Administrating the Zarit Caregiver Burden Interview can help providers look at the degree of burden in caregivers of patients receiving ECT for depressive symptoms and provide better caregiving strategies during and post pandemic.

551 - Case Report: De Archambault's syndrome in the early stage of dementia with Lewy bodies

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Background: Dementia with Lewy bodies (DLB) is the second most common form of degenerative dementia after Alzheimer's disease. In some patients with DLB, relatively rare delusions are known to emerge, such as Othello syndrome, delusional parasitosis and delusion of duplication. Erotomania, also known as de Clerambault's syndrome, is characterized by the delusion that a person has fallen in love with the patient. It occasionally appears secondary to psychiatric disorders and organic brain diseases. However, there have been no reports on cases secondary to patients with DLB.

Case presentation: The patient was an 83-year-old woman who lived alone. Mild cognitive impairment appeared at the age of 82 years. Soon after, she had the delusional conviction that her family doctor was in love with her. Her symptoms, such as gradually progressive cognitive impairment, cognitive fluctuations, and parkinsonism, indicated DLB. Although small doses of quetiapine, brexpiprazole and risperidone were prescribed for the treatment of the delusion, each of them was discontinued soon because of the adverse reactions. Finally, the delusion was successfully treated with a small dose of blonanserin without sever side effects.

Discussions and Conclusions: This case report suggests the possibility of de Clerambault's syndrome during the early stages of DLB. Recently, psychiatric-onset DLB has increasingly gained attention in recent years. Further accumulation of knowledge about delusions in patients with DLB for an early diagnosis.

552 - Humanitude Care on Patients with Dementia and Delirium in Acute Hospital Improves Outcomes
Thuy-Anh Giang, Cheng Ling Jie, Chua Min Jia, Philip Yap

Background/ Objectives: Older patients with dementia and/or delirium often have challenging behaviours such as refusal of care and aggression. These cause much distress to both healthcare staff and patients, increase burden of care and put older patients at risk of functional decline. Humanitude, a methodology of care developed by Gineste and Marescotti, is a relationship- centred and compassionate care approach that aims to enable patients. The aim of this study is to investigate the effectiveness of Humanitude on older patients' well-being, mobility and activities of daily living (ADLs).

Design: Quasi-experimental, non-equivalent controlled trial design.

Setting: Acute care hospital

Participants: Twenty patients diagnosed with dementia and/ or delirium were recruited from two geriatric wards. Ten were in the Humanitude ward and the other ten in a conventional ward received usual care for older patients served as concurrent controls.

Intervention: Patients in Humanitude ward received Humanitude care by trained healthcare workers during day-to-day care, which is based on the 4 pillars of gaze, speech, touch and verticality (maintaining an upright position). Every patient encounter utilizing Humanitude techniques follow a structured care sequence that helps draw the patient into the care relationship.

Measurements: The outcome measures include Modified Perme ICU Mobility Score, Bradford Well-being Profile and Modified Barthel Index (MBI).

Results: There was significant improvement of median score within the Humanitude group from admission to discharge in mobility (admission: 9.0 [0-27] vs discharge 19.5 [1-36], $p=0.002$**), MBI (admission: 20 [0.0-46] vs discharge: 54.3 [3-81], $p = 0.002$**) and well-being (admission: 7.0 [1-15] vs discharge 20.0 [8-26], $p=0.002$**). The median increase in the score of Humanitude group was also significantly higher than usual care group in mobility (Humanitude: 8 [1-24] vs usual care 0 [-9-16], $p= 0.02$*), MBI (Humanitude: 17.5 [3-64] vs usual care 0 [-3-17], $p= <0.001$***), and well-being (Humanitude: 11 [6-20] vs usual care 0 [-5-4], $p= <0.001$ ***).

Conclusion: Humanitude care improves outcomes in mobility, ADL function and well-being for patients with dementia and/ or delirium in the acute hospital.
(Word count: 329)

553 - A promising Dutch initiative for highly intelligent seniors affected by dementia: a qualitative evaluation of Studiegroepen day time activities in long term care

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Background: Long term care organisations in the Netherlands organize day time activities for people with dementia who receive care at home to prevent burden of informal caregivers. Clients with dementia that are characterised as highly educated and/or highly intelligent often refuse to participate in such activities. Boredom, a lack of association with and unwillingness to mix with other participants are often reported. In 2006, the spiritual counselling department of long term care organisation Respect, The Hague, started with *Studiegroepen* (pronounced '*studee-groo-pen'*, study groups). This initiative provides adjusted leisure activities and group conversations about present-day topics and shared life experiences. Existential philosophical themes form the basis for discussions. Although *Studiegroepen* seems very successful and there are long waiting lists, the program is barely studied and is unknown in other organisations.

Aims: (1) to explore the opinions of the participants, their informal caregivers (mainly partners), and spiritual counsellors about *Studiegroepen* and the way the program meets the participants needs for autonomy, competence and relatedness (Self Determination Theory); (2) for the development of implementation material for other organisations, the aim was to reveal specific components of the program and to explore their barriers and facilitators.

Results: A thematic analysis in Atlas.ti of semi-structured interviews with 15 clients, eight informal caregivers and four spiritual counsellors revealed extremely positive evaluations. There were strong indications that the program meets clients' needs for autonomy, competence and relatedness. A striking example of a positive evaluation was a cancellation of relocation of a client-partner couple due to the lack of *Studiegroepen* in that city. Results suggest positive effects on mood, and quality of life. Several informal caregivers perceived a delay in dementia progression. The research revealed specific program components and barriers and facilitators to implement them.

Conclusions: Studiegroepen is a very positively evaluated initiative for highly educated and/or highly intelligent long time care clients with dementia living at home. This initiative should be systematically studied and described, while implementation material needs to be developed. This may help to introduce the program in other organisations and to further explore effects on outcomes in participants, and in informal caregivers.

554 - Evaluation of CPR Decisions on an Older Adult Psychiatric Ward, A Quality Improvement Project

Bennett L, McKinlay M, Prasanna A
Word Count: 350

Background
The National Confidential Enquiry into Patient Outcomes and Death (NCEPOD) stated that CPR status must be considered and recorded for all acute hospital admissions. Compliance with this recommendation and with Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) form documentation in an inpatient psychiatric hospital was assessed. Multidisciplinary team (MDT) opinions surrounding DNACPR were also explored with an aim to educate staff, improving frequency and quality of future discussions.

Research Objective
Ensure patient suitability for CPR is discussed at admission, that discussions are documented and forms completed in line with Trust policy and national guidelines.

Method
Resuscitation Council UK guidelines were used as a standard, namely recommendations for clear and full documentation of CPR decisions triggered by a new admission to hospital. A retrospective study of admissions to the older adult psychiatric ward over a four-month period was carried out, identifying 25 patients fulfilling the inclusion criteria. Demographics and CPR consideration at the initial consultant ward round were documented. Completed DNACPR forms were audited for compliance with Trust guidance. Following data collection, 14 staff interviews using standardised questions were completed to gauge understanding of DNACPR. Answers were analysed and education was identified as key. Bite-sized teaching for MDT staff on DNACPR was carried out and response to the intervention assessed using these same standardised questions.

Preliminary Results of the Ongoing Study
1 patient out of 25 had a CPR discussion documented from their initial consultant review. 12% had documentation of DNACPR consideration throughout the entirety of admission. The 1 DNACPR form subsequently completed had 91% compliance with Trust policy. Qualitative results from staff interviews were insightful with 50% knowing where DNACPR forms werekept, 29% feeling confident discussing DNACPR and 93% feeling able to contribute to team decisions.Following a bite-sized education session these figures increased to 100% having awareness and confidence discussing CPR suitability.

Conclusion
DNACPR considerations are infrequent and staff interviews suggest this may be due to lack of confidence and knowledge surrounding CPR. Bite-sized education may play a significant role in informing the MDT and ensuring vital DNACPR considerations are not forgotten about in the psychiatric setting.

555 - Complex Visual and Haptic Hallucinations in an Elderly Patient... A diagnostic challenge

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Background:
Hallucinations are common in elderly. Understanding the diverse aetiologies and behavioural reactions to hallucinations is vital to provide the best level of care.

Case report:
An 85-year-old man, with several cerebrovascular risk factors (dyslipidaemia, atrial fibrillation, previous ischemic-stroke), developed cognitive impairment after an acute confusional state (two years before), characterized mainly by short-term memory deficit and executive dysfunction. In the meantime, he started recurrent periods of multimodal hallucinations, with predominant sundowning pattern, along several months, comprising complex visual hallucinations, with which he interacted, sometimes combined with haptic hallucinations, describing a plastic sensation in his hands, and manifesting carphologia and psychomotor agitation. Insight into the hallucinatory nature of the phenomenon recovered after a few hours. The neurologic examination revealed partial left oculomotor nerve palsy (left exotropia and diplopia on the right conjugate eye movement), postural instability, slight truncal bradykinesia, and symmetrical rigidity. The neuroimaging studies confirmed small vessel disease with leukoaraiosis and lacunar infarcts in the lentiform nuclei. No lesions were observed within the visual pathway nor the midbrain.

Discussion:
This case leads to an interesting discussion regarding the differential diagnosis of combined hallucinations in elderly.
The presence of the oculomotor nerve palsy selectively affecting somatic fibers, raised the suspicious of peduncular hallucinosis, in the framework of vascular disorder. Combination of visual and tactile may occur in peduncular hallucinosis. However, the neuroimaging studies did not reveal ischemic lesions in the midbrain. Therefore, the most plausible aetiology for hallucinations is a demential syndrome, namely a vascular dementia, considering the findings on neuroimaging. Additionally, a Lewy-body disease (LBD) cannot be ruled out by virtue of the clinical picture of recurrent well-formed visual hallucinations, symptom fluctuation and slight parkinsonism, or even a Lewy-body variant of Alzheimer disease, considering the presence of amnestic symptoms. Tactile hallucinations have been described in alfa-synucleinopathies. Contrarily to Parkinson disease, when the LBD patients touch their visual hallucinations, the perceived objects often do not disappear and may experience specific texture and thermic sensations.
Future research would benefit from a more detailed investigation of the profile of similarities and differences in hallucinations across clinical disorders to facilitate differential diagnosis.

Keywords: complex visual hallucinations; haptic hallucinations; Lewy-body dementia; Lewy-body variant of Alzheimer disease, peduncular hallucinations.

556 - THE IMPACT OF COVID-19 PANDEMIC ON ELDERLY'S MENTAL HEALTH
Author List: Sofia Ramos Ferreira, Daniela Pereira, Horácio Firmino

Background: Since the disease caused by the SARS-Cov-2 virus was declared a pandemic by the World Health Organization, countries around the globe adopted measures of social distancing to limit the spread of the virus. Although social distancing measures are essential preventive mechanisms, they can promote feelings of loneliness and influence the onset or exacerbation of psychiatric disorders. Current knowledge about the impact of COVID-19 on mental health - and in particular on mental health of the geriatric population - is still scarce.
Research Objective: The present review aimed to analyze the COVID-19 pandemic impact on the elderly´s mental health and to suggest measures that can mitigate this impact.
Method: A non-systematic review of the literature, through bibliographic research in Pubmed and Embase databases - using the keywords "COVID-19", "SARS-CoV-2", "Coronavirus", "Aging", "Older adults", "Elderly", "Quarantine" and "Mental health" -was performed.
Preliminary results of the ongoing study: The available literature points towards a likely increase in mental disorders as a result of the COVID-19 pandemic. This phenomena may be particularly relevant in the elderly population. Several measures – pharmacological and non-pharmacological – can help to maintain the physical and mental health of the elderly.

Conclusion: The COVID-19 pandemic had an important impact in elderly's mental health. This subject should be addressed by profissionals / caregivers and measures tominimize negative consequences are in order.

557 - Generalized anxiety disorder in older adults: acceptability of guided self-help by a lay provider and preference among different treatment modalities

Anne-Julie Gagné, Philippe Landreville, Patrick Gosselin, Pierre-Hugues Carmichael

A cognitive-behavioral guided self-help conducted by lay providers (CBT-GSH-LP) had been shown to be effective in treating anxiety and may help facilitate access to treatment. The first objective of this study was to assess the acceptability the CBT-GSH-LP for the Generalised Anxiety Disorder in adults aged 60 and over. Its acceptability was compared to that of the same treatment conducted by a psychotherapist (CBT-GSH-PSY) and to that of a face-to-face cognitive behavioral therapy with a psychotherapist (CBT- PSY). The second objective was to assess the preference of the participants for these treatment modalities. As a secondary objective, variables potentially associated with acceptability or preference were explored, as well as reported reasons for treatment preference. Participants were recruited in community centers and private residences. They had to complete a sociodemographic questionnaire, read descriptions of the three treatments, and complete the Treatment Evaluation Inventory for each one, then to place those treatment in order of preference as well as indicating the reason for their preferred treatment. ANOVAs were performed to identify differences in acceptability scores between the three treatment modalities and proportions were calculated for preferred treatment and reasons associated. CBT-GSH-LP was considered moderately acceptable by participants (N = 116; mean age =
70.5 years), although significantly less acceptable than the other two treatment modalities. In addition, the proportion of participants who found CBT-GSH-LP to be at least moderately acceptable was high (59,3%), although lower than that of the other two treatment modalities (CBT-GSH-PSY: 85,8%; CBT-PSY: 91,2%). Consequently, the preferred treatment of participants was CBT-PSY followed by CBT-GSH-PSY, then CBT-GSH-LP. Among participants preferring CBT-GSH-LP, its long-lasting effect, ease of access,

training of the therapist, required patient involvement, and autonomy afforded by treatment were the top reasons. Regarding characteristics, the results show that single and widowed older adults considered CBT-GSH-LP more acceptable than married, divorced, or separated people. Thus, although it

is not the preferred treatment modality for older adults, CBT-GSH-LP is acceptable and would benefit from being better known and used for generalized anxiety disorder.

558 - MULTIMODAL EEG-MRI IN THE DIAGNOSIS OF MILD COGNITIVE IMPAIRMENT WITH LEWYBODIES

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Background:
Differentiating mild cognitive impairment with Lewy bodies (MCI-LB) from mild cognitive impairment due to Alzheimer's disease (MCI-AD) is challenging due to an overlap of symptoms. Quantitative EEG analyses have shown varying levels of diagnostic accuracy, while visual assessment of EEG may be a promising diagnostic method. Additionally, a multimodal EEG-MRI approach may have greater diagnostic utility than individual modalities alone.

Research Objective:
To evaluate the utility of (1) a structured visual EEG assessment and (2) a machine learning multimodal EEG-MRI approach to differentiate MCI-LB from MCI-AD.

Method:

300 seconds of eyes-closed, resting-state EEG from 37 MCI-LB and 36 MCI-AD patients were analysed. EEGs were visually assessed for the presence of diffuse, focal, and epileptiform abnormalities, overall grade of abnormalities and focal rhythmic delta activity (FIRDA). Random forest classifiers to discriminate MCI-LB from MCI-AD were trained on combinations of visual EEG, quantitative EEG and structural MRI features. Quantitative EEG features (dominant frequency, dominant frequency variability, theta/alpha ratio and measures of spectral power in the delta, theta, prealpha, alpha and beta bands) and structural MRI features (hippocampal and insular volumes) were obtained from previous analyses of our dataset.

Results:

Most patients had abnormal EEGs on visual assessment (MCI-LB = 91.9%, MCI-AD = 77.8%). Overall grade (X^2 (73, 2) = 4.416, p = 0.110), diffuse abnormalities X^2(73,1) = 3.790, p = 0.052, focal abnormalities X^2 (73,1) = 3.113, p = 0.077 and FIRDA X^2(73,1) = 0.862, p = 0.353 did not differ between groups. All multimodal classifiers had similar diagnostic accuracy (area underthe curve, AUC = 0.681 - 0.686) to a classifier that used quantitative EEG features only (AUC =0.668). The feature 'beta power' had the highest predictive power in all classifiers.

Conclusion:

Visual EEG assessment was unable to discriminate between MCI-LB and MCI-AD. However, future work with a more sensitive visual assessment score may yield more promising results.A multimodal EEG-MRI approach does not enhance the diagnostic value of quantitative EEG alone in diagnosing MCI-LB.
(326 words)

559 - Neuropsychiatric symptomatology after severe COVID-19 in older survivors

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Background: The coronavirus disease 2019 (COVID-19) has rapidly spread worldwide, leading to increased concerns about long-term patients' neuropsychiatric morbidity. Currently, there is still few data regarding mental health after hospital discharge of severe COVID-19 elderly patients. Considering this, the present study aims to characterize the neuropsychiatric morbidity in old severe COVID-19 patients.

Methods: In the context of an ongoing multidisciplinary research project, this study analyzed a subsample of patients aged ≥60 years, admitted due to COVID-19, during the first wave, in the Intensive Care Medicine Department (ICMD) of a University Hospital in Porto, Portugal. ICMD length of stay (LoS) ≤24h, terminal illness, major auditory loss or inability to communicate at the time of follow- up were used as exclusion criteria. Participants were evaluated by telephone in average 99 (±32) days after being discharged from the hospital, with Six-item Cognitive Impairment Test, PatientHealth Questionnaire and Generalized Anxiety Disorder Scale. Sociodemographic and relevant clinicaldata were obtained from hospital electronic records and clinical interview.

Results: A sample of 39 survivors with a mean age of 70 (±6.3) years old were assessed. The majority were male (62%), married (64%), retired (77%), with low educational level (59%), and 15% lived alone. The average number of comorbidities and the daily medications per patient were 4.7 (±1.7) and 5.5 (±3.5), respectively.

During ICMD stay, 69% had nosocomial infections and 56% delirium. Deep sedation was used in 74% of the patients (mean=30 days) and 74% needed Invasive Mechanical Ventilation. ICMD mean LoS was33 (±28.3) days. Based on follow-up assessment, 18% of survivors had cognitive impairment, whereas23% and 15% had depressive and anxiety symptoms, respectively. A positive and high correlation between depression and anxiety was found (r_s=0.792; p<0.001). No significant associations were observed with cognitive impairment.

Conclusions: The presence of this symptomatology may hinder a successful recovery once the patient is discharged back home. This is particularly relevant accruing the strong relationship between depressive and anxious symptoms found in this sample. Therefore, early screening and timely multidisciplinary support interventions to minimize these neuropsychiatric symptoms after discharge should be considered in order to achieve positive health outcomes.