

# 19th National Conference of Emerging Researchers in Ageing

Theme: *Survive and Thrive*

4 November 2021

Virtual



As we gather for this conference physically dispersed and virtually constructed let us take a moment to reflect on the meaning of place and in doing so recognise the various traditional lands on which we meet.

Emerging Researchers in Ageing acknowledges and pays respect to the past, present and future Traditional Custodians and Elders of this nation and the continuation of cultural, spiritual, and educational practices of Aboriginal and Torres Strait Islander peoples.

# Conference Proceedings

Emerging Researchers in Ageing: [era.edu.au](http://era.edu.au)

ERA 2021 contact: [era2021@era.edu.au](mailto:era2021@era.edu.au)

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# Welcome from the ERA National Convenor

It is with great pleasure that I welcome you to the 19th National Conference of Emerging Researchers in Ageing. With the ongoing COVID-19 pandemic and associated lockdowns we were unable to hold our conference last year, and so felt that it was vital for us to engage with emerging researchers this year.

As a virtual conference, we have worked with our conference Co-Chairs, Professor Julie Byles and Dr Rachel Winterton, to update the format of the conference to maximise engagement opportunities, as well as make the conference as fun and interesting as possible. This includes:

- Utilising Zoom breakout rooms, so that presenters and attendees can interact with each other (rather than being restricted to simply viewing presentations and communicating by chat text)
- Foregoing the usual morning and afternoon keynotes in favour of more interactive sessions, with gaps after sessions for people to continue to talk
- Holding an interactive “Ask the ERA Brains Trust” session where participants pose questions to relevant experts and the ERA community
- Finishing the day with a Research Journey Game - think the highs and lows of snakes and ladders, but with research ethics and recruitment delays!

I encourage all conference delegates to take up the opportunity to network during the conference, as the connections you make over the day could end up sustaining you throughout your career in research and possibly beyond.

I would like to thank CEPAR, the primary sponsor of ERA, for their ongoing support of all our activities, and the Australian Association of Gerontology for their ongoing collaboration. I would particularly like to thank our conference Co-Chairs Julie and Rachel and our tireless ERA Coordinator Courtney, who have all worked hard to make this the best possible virtual conference.

I look forward to ‘seeing’ you all at the conference!

*Matthew Carroll*

Dr Matthew Carroll  
ERA National Convenor



# Co-Chairs



**Professor Julie Byles**  
**University of Newcastle**

Professor Julie Byles is Global Innovation Chair in Responsive Transitions in Health and Ageing, Director of the Centre for Women's Health Research at the University of Newcastle and a Director of the Australian Longitudinal Study on Women's Health.

As a Fellow and Life Member of the Australian Association of Gerontology, Professor Byles' research interests in ageing include the role of health services, preventive activities, and treatments in maintaining quality of life for older people. She is also Head of the International Longevity Centre – Australia, and Chair of the International Association of Gerontology (Asia Oceania) Social Research and Planning sub-committee.

Professor Byles has excellent experience in mentorship and training researchers at doctoral level. Under her supervision, 37 students have completed research higher degrees at PhD level, six students have completed Masters level and 11 PhD candidates are completing their studies.



**Dr Rachel Winterton**  
**La Trobe University**

Dr Rachel Winterton is a Senior Research Fellow and Graduate Research Coordinator with the John Richards Centre for Rural Ageing Research at La Trobe University.

Rachel is internationally recognised for her expertise in rural ageing studies, with specific expertise in voluntary sector responses to rural population ageing and rural age-friendly communities. She is the current convenor of the Australian Association of Gerontology Rural, Regional and Remote Special Interest Group, and was called as an expert witness to the rural hearing of the Royal Commission for Aged Care Quality and Safety in 2019. Rachel has recently co-edited an international volume on critical rural gerontology, in collaboration with Professor Mark Skinner (Trent University, Canada) and Professor Kieran Walsh (NUI Galway, Ireland). Her research has been published in leading journals such as *Health and Place*, *The Gerontologist*, *Geoforum* and the *Journal of Rural Studies*.

Twitter @RachelWinterton

# Acknowledgements

## ERA 2021 Conference Committee

**Professor Julie Byles** (co-Chair), University of Newcastle  
**Dr Rachel Winterton** (co-Chair), La Trobe University  
**Dr Matthew Carroll**, Emerging Researchers in Ageing  
**Courtney Hempton**, Emerging Researchers in Ageing

## ERA 2021 Ambassadors

**Professor Marian Baird**, The University of Sydney  
**Dr Helen Barrie**, University of South Australia  
**Professor Elizabeth Beattie**, Queensland University of Technology  
**Dr Elissa Burton**, Curtin University  
**Professor Briony Dow**, National Ageing Research Institute  
**Professor Anne-Marie Hill**, Curtin University  
**Professor Keith Hill**, Monash University  
**Professor Lee-Fay Low**, The University of Sydney  
**Dr Judy Lowthian**, Bolton Clarke Research Institute  
**Professor Evonne Miller**, Queensland University of Technology  
**Professor Wendy Moyle**, Griffith University  
**Associate Professor Lynne Parkinson**, The University of Newcastle  
**Professor Yvonne Wells**, La Trobe University  
**Associate Professor Tim Windsor**, Flinders University

## ERA 2021 'Brains Trust'

**Professor Julie Byles**, University of Newcastle  
**Dr Trevor T-J Chong**, Monash University  
**Dr Xenia Dolja-Gore**, University of Newcastle  
**Professor Evonne Miller**, Queensland University of Technology  
**Professor Wendy Moyle**, Griffith University  
**Associate Professor Lynne Parkinson**, The University of Newcastle  
**Dr Kailash Thapaliya**, University of Newcastle  
**Associate Professor Tim Windsor**, Flinders University

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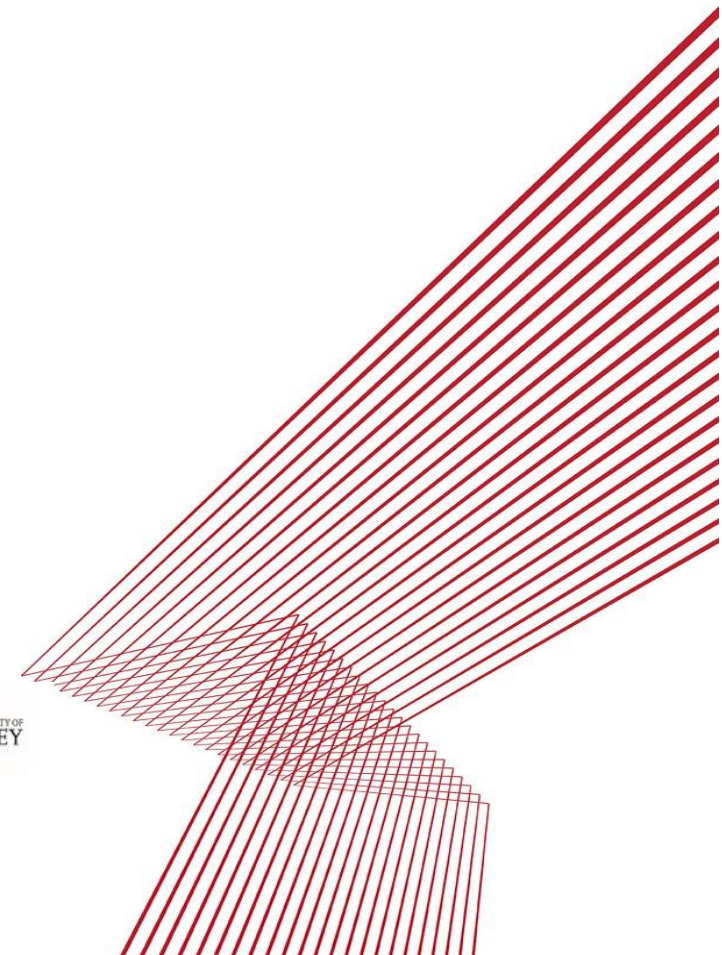
**Tim Campbell**, Monash University  
**Dr Kirsten Moore**, National Ageing Research Institute  
**Dr Chiara Naseri**, Curtin University  
**David Poland**, Monash University

# CEPAR, ERA Primary Sponsor

CEPAR – the ARC Centre of Excellence in Population Ageing Research – is a unique collaboration bringing together academia, government, and industry to deliver solutions to one of the major economic and social challenges of the twenty first century.

Based at the University of New South Wales with nodes at the Australian National University, Curtin University, University of Melbourne and the University of Sydney, CEPAR produces world-class research and fosters a new generation of researchers with an appreciation of the multidisciplinary nature of population ageing.

[cepar.edu.au](http://cepar.edu.au)





# Prizes

## **Best ERA 2021 Oral Presentation**

Presenting an oral paper at a research conference requires the ability to present a complicated research program in a clear, visually appealing, and engaging manner. The presenter considered by the judging panel to be the best oral presenter will be awarded a prize to the value of \$250 and a certificate.

## **Best ERA 2021 ERA Brains Trust Presentation**

Presenting an Ask the ERA Brains Trust presentation requires the ability to briefly present a complicated research program in a clear and visually appealing manner, and to engage the ERA Brains Trust and audience in a vibrant and valuable discussion. The presenter considered by the judging panel to be the best oral presenter will be awarded a prize to the value of \$250 and a certificate.

## **Helen Bartlett Prize for Innovation in Ageing Research**

The Helen Bartlett Prize for Innovation is awarded for the most original and creative research presented at the conference. The prize recognises the outstanding contribution made by Professor Helen Bartlett to the field of ageing research in Australia, particularly as the founder of the ERA initiative. The research considered by the judging panel to be the most innovative will be awarded a prize to the value of \$250 and a certificate.

# Programme

Thursday 4 November 2021

*Australian Eastern Daylight Time (AEDT) – please check your local time*

## OPENING PLENARY

10am – 10.15am

ACKNOWLEDGEMENT OF COUNTRY

OPENING ADDRESS

**Dr Rachel Winterton**, ERA 2021 Co-Chair

WELCOME

'ZOOM-KEEPING'

**Dr Matthew Carroll**, ERA National Convenor

*Zoom-keeping notes:*

- *Breakout Rooms: concurrent sessions throughout the day are held in 'Breakout Rooms' – please select which Room number you wish to join using the **Breakout Room function**; use the same function to move between Rooms during the concurrent sessions (refer [Zoom Map](#)).*  
*Following the conclusion of each session the Breakout Rooms will remain open, so please utilise these spaces to continue the conversation.*
- *Q&A: if you wish to ask a presenter a question in the Q&A following their presentation, please use the **Raise Hand function** – click on the Reactions icon and then click Raise Hand – the Chair will then call on you to ask a question.*
- *Chat: please utilise the **Chat function** to engage with presenters and other delegates throughout the conference.*
- *Please refer to the '**Virtual Conference Instructions**' provided for further information.*

All presentation titles are hyperlinked to the corresponding abstract for your reference.

## CONCURRENT SESSIONS (A): ORAL PRESENTATIONS

10.15am – 11.15am

Predicting Health Outcomes	Determinants of Ageing	Contexts of Care
ROOM 1	ROOM 2	ROOM 3
Chair: <b>Professor Keith Hill</b>	Chair: <b>Dr Helen Barrie</b>	Chair: <b>Professor Evonne Miller</b>
THE RELATIONSHIP BETWEEN ANXIETY AND CARDIOVASCULAR RISK IN HEALTHY AGEING WOMEN <b>Britney Trang</b> (she/her)	SUCCESSFUL AGEING IN GREEK MIGRANTS COMPARED TO RESIDENT GREEK COUNTERPARTS: MEDIS-AUSTRALIA STUDY <b>Antonia (Tania) Thodis</b> (she/her)	CARE DISRUPTION: IMPLICATIONS FOR CARE ETHICS AND OLDER PEOPLE'S SOCIAL CARE IN A LOW-INCOME COUNTRY CONTEXT <b>Diana Nabbumba</b> (she/her)
HEARING IMPAIRMENT AND FRAILITY IN LATER LIFE <b>Rong Tian</b>	LOWER LEVELS OF AIR POLLUTION EXPOSURE ARE NOT ASSOCIATED WITH INCIDENT DEMENTIA <b>Michelle Trevenen</b>	EXAMINING THE ROLE OF ARCHITECTURE IN AGED CARE FACILITIES FROM A SOCIO-SPATIAL PERSPECTIVE <b>Nikki Beckman</b> (she/her)
DISPOSITIONAL OPTIMISM AND ALL-CAUSE MORTALITY IN OLDER ADULTS: A COHORT STUDY <b>Heather Craig</b> (she/her)	ASSOCIATION BETWEEN FRAILITY AND INFECTION WITH SARS COV-2: A COHORT STUDY <b>Prashant Morwal</b> (he/him)	ACTIVITY ENGAGEMENT AND MEANING AMONG ADULTS IN AUSTRALIAN RETIREMENT COMMUNITIES <b>Anne-Maree Caine</b> (she/her)
INFECTIOUS DISEASES IN A LIFE CYCLE ECONOMY <b>Roshen Fernando</b> (he/him)		LIFE STORIES, DEATH STORIES: RESIDENTIAL AGED CARE WORKERS RELATIONSHIP WITH DEATH <b>Liana Green</b> (she/her)

## BREAK

11.15am – 11.30am

## CONCURRENT SESSIONS (B): ORAL PRESENTATIONS

11.30am – 12.30pm

<b>Cognitive Health</b>	<b>Clinical Care Practices</b>	<b>Care Transitions</b>
ROOM 1	ROOM 2	ROOM 3
Chair: <b>Professor Elizabeth Beattie</b>	Chair: <b>Dr Judy Lowthian</b>	Chair: <b>Professor Yvonne Wells</b>
DEVELOPMENT OF A NEW COMPUTER SIMULATED ENVIRONMENT TEST TO SCREEN FOR COGNITION IN OLDER ADULTS <b>Joyce Siette</b> (she/her)	GENERAL PRACTITIONER'S ATTITUDES AND BEHAVIOURS REGARDING CANCER SCREENING IN OLDER ADULTS: A QUALITATIVE STUDY <b>Jenna Smith</b> (she/her)	USING A COMPREHENSIVE GERIATRIC ASSESSMENT FOR OLDER ADULTS UNDERTAKING A FACILITY-BASED TRANSITION CARE PROGRAM TO EVALUATE HEALTH OUTCOMES: A FEASIBILITY STUDY <b>Ying Git Wong</b> (he/him)
EXPOSURE-RESPONSE RELATIONSHIPS BETWEEN VITAMIN D STATUS AND COGNITIVE PERFORMANCE: A CROSS-SECTIONAL ANALYSIS IN MIDDLE TO OLDER-AGED ADULTS IN THE BUSSELTON HEALTHY AGEING STUDY <b>Janis (Jan) Harse</b>	CURRENT PHYSIOTHERAPY MANAGEMENT OF PARKINSON'S DISEASE: IS AQUATIC PHYSIOTHERAPY UTILISED AS A TREATMENT MODALITY? <b>Aan (Fleur) Terrens</b>	BARRIERS AND ENABLERS TO HEALTH AND SOCIAL SERVICES FOR OLDER PRISONERS TRANSITIONING TO COMMUNITY <b>Amanuel Hagos</b>
THE RELATIONSHIP BETWEEN HEARING LOSS AND COGNITIVE IMPAIRMENT: AN ANALYSIS OF MANDARIN-SPEAKING OLDER ADULTS LIVING IN CHINA <b>Xinxing Fu</b>	THE BARRIERS AND FACILITATORS TO DELIVER ORAL CARE FOR OLDER ADULTS IN HOSPITAL SETTINGS <b>Keiko Oda</b>	MULTIDISCIPLINARY HEALTH PROFESSIONALS' TRANSFER DECISION MAKING FROM HOSPITAL TO RESIDENTIAL AGED CARE <b>Tiffany Northall</b>
ASSOCIATION BETWEEN INDOOR AIR POLLUTION AND COGNITIVE FUNCTION OF OLDER ADULTS IN INDIA: A CROSS-SECTIONAL STUDY <b>Ritu Rani</b> (she/her)	EVIDENCE OF POTENTIAL OVERTREATMENT AND UNDERTREATMENT OF TYPE 2 DIABETES MELLITUS IN RESIDENTIAL AGED CARE: A SYSTEMATIC REVIEW <b>Jacqueline (Jacqui) Stasinopoulos</b> (she/her)	"IS MY JOURNEY DESTINATION HOME?" EXPERIENCES OF OLDER ADULTS WHO UNDERTAKE A TRANSITION CARE PROGRAM IN A FACILITY SETTING <b>Jo-Aine Hang</b>

## BREAK

12.30pm – 1.15pm

## CONCURRENT SESSIONS (C): ORAL PRESENTATIONS

1.15pm – 2.30pm

<b>Physical Activity &amp; Falls Prevention</b>	<b>Dementia Care</b>	<b>Participation</b>
ROOM 1	ROOM 2	ROOM 3
Chair: <b>Dr Elissa Burton</b>	Chair: <b>Professor Lee-Fay Low</b>	Chair: <b>Dr Kirsten Moore</b>
BIOLOGICAL RESILIENCE, LONGEVITY AND THE ROLE OF RESISTANCE TRAINING <b>Isabel King</b>	THE THEMES OF PSYCHOTIC SYMPTOMS SEEN IN YOUNGER-ONSET DEMENTIA <b>Liam Borelli-Millott</b> (he/him)	BARRIERS AND FACILITATORS TO CLINICAL TRIAL RECRUITMENT AND RETENTION OF OLDER PEOPLE: A MIXED-METHODS STUDY <b>Susan (Sue) Markham</b> (she/her)
EFFECT OF COGNITIVE TASK COMPLEXITY ON DUAL TASK POSTURAL STABILITY: A SYSTEMATIC REVIEW AND META-ANALYSIS <b>Abubakar Tijjani Salihu</b>	ASSESSING THE IMPACT OF COVID-19 ON PEOPLE WITH DEMENTIA AND THEIR CARE PARTNERS <b>Juanita-Dawne Bacsu</b> (she/her)	SOCIAL NETWORK TOOLS FOR OLDER ADULTS: A SYSTEMATIC REVIEW <b>Laura Dodds</b> (she/her)
FALLS AND PHYSICAL ACTIVITY IN AUSTRALIAN OLDER WOMEN <b>Wing S (Venisa) Kwok</b> (she/her)	FACTORS ASSOCIATED WITH PSYCHOTROPIC MEDICATION USE IN PEOPLE LIVING WITH DEMENTIA IN THE COMMUNITY: A SYSTEMATIC REVIEW <b>Kerryn Loftus</b>	ECOLOGIES OF INCLUSION: THIRD AGE INFORMAL LANGUAGE LEARNER GROUPS <b>Gareth Barnes</b>
A SAFE MOBILISATION PROGRAM TO IMPROVE FUNCTIONAL MOBILITY AND REDUCE FALL RISKS IN COGNITIVELY IMPAIRED OLDER ADULTS WITH HIGHER-LEVEL GAIT DISORDERS: A PILOT STUDY <b>Weihong Zhang</b>	A QUANTITATIVE STUDY OF DEMENTIA LITERACY AMONG FORMAL CARERS WORKING IN AGED CARE IN AUSTRALIA <b>Ella Critchley</b> (she/her)	BELONGING ONLINE: OLDER ADULTS' USE OF INTERNET FOR SUPPORT AND COMMUNITY <b>Belinda Fuss</b>
AMBULANCE-ATTENDED ADULT FALLS PATIENTS IN WESTERN AUSTRALIA, 2019/20 <b>Paige Watkins</b> (she/her they/them)		YES, OLDER ADULTS ARE ONLINE AND WILLING TO DISCUSS SEXUAL HEALTH: RECRUITING PARTICIPANTS 60+ FOR AN ONLINE SEXUAL HEALTH SURVEY <b>Louise Bouchier</b> (she/her)

## BREAK

2.30pm – 2.45pm

## CONCURRENT SESSIONS (D): ASK THE ERA BRAINS TRUST PRESENTATIONS

2.45pm – 3.30pm

*The Ask the ERA Brains Trust format provides presenters with an opportunity to briefly present their research, and ask members of our 'ERA Brains Trust' key questions regarding aspects of their research; each presenter is allocated an initial 10 minutes (including a 3-minute presentation and responses from the ERA Brains Trust), with the final 15 minutes of the session allocated to open Q&A.*

Ageing Interventions	Markers of Ageing
ROOM 1	ROOM 2
Chair: <b>Dr Rachel Winterton</b>	Chair: <b>Dr Matthew Carroll</b>
ERA Brains Trust: <ul style="list-style-type: none"> <li>• <b>Professor Evonne Miller</b></li> <li>• <b>Professor Wendy Moyle</b></li> <li>• <b>Associate Professor Lynne Parkinson</b></li> <li>• <b>Associate Professor Tim Windsor</b></li> </ul>	ERA Brains Trust: <ul style="list-style-type: none"> <li>• <b>Professor Julie Byles</b></li> <li>• <b>Dr Trevor T-J Chong</b></li> <li>• <b>Dr Xenia Dolja-Gore</b></li> <li>• <b>Dr Kailash Thapaliya</b></li> </ul>
STORYTELLING AS CO-DESIGN METHOD WITHIN LONG TERM CARE HOMES <b>Morgan Martino</b> (she/her)	DYNAMICS BETWEEN NEUROPSYCHIATRIC SYMPTOMS AND BIOMARKERS: A PILOT STUDY <b>Wei-Hsuan (Michelle) Chiu</b> (she/her)
THE EFFECTS OF ONLINE MINDFULNESS-BASED INTERVENTIONS ON INFORMAL CARERS: A MIXED METHODS SYSTEMATIC REVIEW <b>Charunya (Charu) Abeyanseluge Mudiyansele</b>	COMPARISON OF THREE DEMENTIA PREDICTION MODELS USING THE HUNTER COMMUNITY STUDY COHORT <b>Gopisankar Mohanannair Geethadevi</b>
	A NOVEL APP-BASED STUDY OF LIFE-COURSE VARIABILITY IN MULTIDIMENSIONAL SUBJECTIVE AGE, HEALTH AND COGNITION <b>Shally Zhou</b> (she/her)

## BREAK

3.30pm – 3.45pm

## THE RESEARCH JOURNEY GAME

3.45pm – 4.15pm

*The Research Journey Game™ was developed by Professor Julie Byles and her team as an interactive way to explore the promises and pitfalls of research in a fun and engaging way.*

Co-hosts: **Professor Julie Byles + Associate Professor Lynne Parkinson**

## CLOSING PLENARY

4.15pm – 4.30pm

### AWARD OF PRIZES

- Best ERA 2021 Oral Presentation
- Best ERA 2021 Ask the ERA Brains Trust Presentation
- Helen Bartlett Prize for Innovation in Ageing Research

**Dr Matthew Carroll**, ERA National Convenor

### ANNOUNCEMENT – ‘ERA 2022’

**Courtney Hempton**, ERA Coordinator

### CONFERENCE CLOSE

**Professor Julie Byles**, ERA 2021 Co-Chair

## RECEPTION

4.30pm – 5pm

*Following the conclusion of the conference we welcome all delegates to stay online for an informal reception.*

# Abstracts

*In alphabetical order (by presenting author)*

## THE EFFECTS OF ONLINE MINDFULNESS-BASED INTERVENTIONS ON INFORMAL CARERS: A MIXED METHODS SYSTEMATIC REVIEW

**ABEYSINGHE MUDIYANSELAGE Charunya**<sup>1</sup>, **EWENS Bev**<sup>1</sup>, **SMYTH Aisling**<sup>2</sup>, **ANG Marcus**<sup>1</sup>, **DICKSON Joan**<sup>1</sup>

<sup>1</sup> Edith Cowan University

<sup>2</sup> The University of Notre Dame

**Background:** 11.1% of Australians are informal carers. Caregiving demands often prevents carers from engaging in work or social activities, which increases their burden and reduces quality of life. Mindfulness can improve psychological wellbeing, reduce stress, and increase self-compassion. There is a paucity of evidence which explores the impact of online mindfulness-based interventions and the barriers and enablers to implementing these for informal carers. **Objectives:** This paper presents findings of a systematic review which identified the impact of, and barriers and facilitators to online mindfulness-based interventions for informal carers. **Methods:** A mixed-methods systematic review using JBI Guidelines. Studies focusing on online mindfulness meditation in informal carers were identified from five databases: CINAHL, MEDLINE, PsycINFO, Web of Science and Scopus. Quality of included studies were appraised using Joanna Briggs Institute (JBI) critical appraisal tools. Data were extracted following the Newman System Model framework. **Results:** 138 articles were identified from the initial search and nine studies included in the review: five randomised controlled trials, two qualitative and two quasi-experimental studies. Studies published in English were included; all were published between 2017-2020. Data analysis identified three themes for the impact of online mindfulness-based interventions: reduction in caregiver burden, increased psychological wellbeing, and increased mindfulness, and thirteen subthemes. Two themes for enablers and barriers were identified: environmental and individual; nine subthemes were identified for enablers and seven subthemes were identified for barriers. **Conclusions:** Online mindfulness-based interventions may improve informal carers' mindfulness and psychological wellbeing. Online interventions are feasible, accessible and time efficient. Only three studies explored the impact of online mindfulness on informal caregivers of older adults. This is an important area of future research including those caring for older adults with dementia, as there is a paucity of studies related to this population.



## ASSESSING THE IMPACT OF COVID-19 ON PEOPLE WITH DEMENTIA AND THEIR CARE PARTNERS

**BACSU Juanita-Dawne<sup>1</sup>, O'CONNELL Megan E<sup>1</sup>, CAMMER Allison<sup>1</sup>, GREWAL Karl<sup>1</sup>, AZIZI Mahsa<sup>1</sup>, GREEN Shoshana<sup>1</sup>, POOLE Lisa<sup>2</sup>, WEBSTER Claire<sup>3</sup>, WIGHTON Mary Beth<sup>2</sup>, SIVANANTHAN Saskia<sup>4</sup>, SPITERI Raymond J<sup>1</sup>**

<sup>1</sup> University of Saskatchewan

<sup>2</sup> Dementia Advocacy Canada

<sup>3</sup> Caregiver Crosswalk

<sup>4</sup> Alzheimer Society of Canada

**Background:** The COVID-19 pandemic is taking a serious toll on people with dementia and their care partners. Despite this situation, little discussion focuses on the COVID-19 experiences of people with dementia. **Objective:** The purpose of this research was to understand the impact of COVID-19 on people with dementia and their care partners. **Methods:** Two methods were used: a scoping review and an analysis of Twitter data. The review was conducted by searching six databases: Scopus, PubMed, CINAHL, EMBASE, Web of Science, and Google Scholar. From 420 initial records, 21 articles were included in the review. For the Twitter analysis, relevant tweets were collected using Python's GetOldTweets application from February to September 2020. Filters were used to exclude irrelevant tweets (15,737), and the remaining 5,063 tweets were exported to Excel for analysis. The tweets were divided among 7 coders with an additional coder managing inter-coder reliability during thematic analysis. **Results:** Based on our research, five themes emerged: i) lockdown challenges (e.g., routine disruptions, physical inactivity, and limited/terminated services and supports); ii) separation and loss (e.g., visitation bans, cognitive decline, and death); iii) unpaid sacrifices of formal care providers (e.g., inadequate PPE, limiting outside contacts, and foregoing family events); iv) COVID-19 confusion, despair, and declining psychological health (e.g., abandonment, depression, and anxiety); and v) informal care partner fatigue and burnout (e.g., increased workload, financial challenges, social isolation, and mental health issues). **Conclusion:** Urgent action and government leadership are needed to support people with dementia during the pandemic. Lockdown policies and lack of services have created a support vacuum, leaving people with dementia and their care partners at a point of crisis. In developing COVID-19 policies and programs to support people with dementia and their care partners, there is an imminent need for collaborative research and co-creation methods to ensure maximum impact.

## ECOLOGIES OF INCLUSION: THIRD AGE INFORMAL LANGUAGE LEARNER GROUPS

### BARNES Gareth

Faculty of Linguistics, Macquarie University

This research explores the factors involved in the emergence of an independently organised Third Age informal language learner group in a community centre in Japan. The methodology applies PPCT (Process-Person-Context-Time) from Bronfenbrenner's bioecological approach to provide a detailed perspective of the people and the settings over time to show how these factors interact to construct an emergent learner group. There were 8 participants, aged 60 and over in the independently organised group, and the lengths of involvement ranged from over 30 years to 2 months. Multiple data sources were used, eliciting information about life experiences, beliefs and opinions about language learning from the participants. The analysis looks at how and why this specific learner ecology emerges and how it can inform healthy ageing policy. The findings show that by engaging in second language learning, the participants find meaningful and active involvement in the group by creating a setting that welcomes self-expression, while balancing limiting and facilitating factors of resilience and reciprocal support, self-management, interest, agency, and responsibility. The result is the emergence of a multilingual, multicultural, and multigenerational place of inclusion within the community. The study highlights the heterogeneity of the Third Age and the interplay of contexts outside of the learner group from micro to macro, individual and group resources, and the influence of the social time period. It shows the social importance of creating opportunities for autonomous informal language learning settings in the community while highlighting the impact of Third Age agency. The findings presented align with the key terms of WHO's *Decade of Healthy Ageing (2020-2030)*, as the learner ecologies the participants are engaged in provide opportunities for supporting the functional ability, the intrinsic capacity, and the affordances important for the realisation of healthy ageing, while giving a unique perspective into the lives of the participants.

## **EXAMINING THE ROLE OF ARCHITECTURE IN AGED CARE FACILITIES FROM A SOCIO-SPATIAL PERSPECTIVE**

**BECKMAN Nikki<sup>1</sup>, LOZANOVSKA Mirjana<sup>1</sup>, DE MARINIS Cecilia<sup>1</sup>, PEPIN Genevieve<sup>2</sup>, BATCHELOR Frances<sup>3</sup>**

<sup>1</sup> School of Architecture and Built Environment, Deakin University

<sup>2</sup> School of Health and Social Development, Deakin University

<sup>3</sup> National Ageing Research Institute

While there is interest in understanding the role of architecture in aged care facilities, the focus is either (i) on the facility's features, look and feel or overall aesthetics; (ii) on the performance of the building itself, in terms of environmental, clinical, or functional criteria; or (iii) on a singular component of experiencing life in residential aged care – creating a sense of home, material culture, social isolation, or dignity – in which the architecture plays a secondary and often static backdrop to life being lived. Seldom is the focus from a socio-spatial perspective; critically examining how residents feel towards the architecture of the facility they call home, and how these spaces are designed for continual purpose, engagement, contribution, and connection of residents with each other, to family and friends, to community, and to nature. This paper uses the lens of Doreen Massey's spatial theory to develop unique socio-spatial criteria, to critically examine the design, organisation and quality of spaces within residential aged care facilities; and to fundamentally ask what might be possible if we dared to apply a social value index to how we design spaces for older persons. This question sits within a broader research project examining the role of architecture in the lives and experiences of aged care residents, by exploring the relationships between people, place and purpose in residential aged care facilities. The larger scope of methodologies in this research combines quantitative data of resident movements, visual material, and qualitative data about resident wellbeing and sense of place. This paper rethinks the role of architectural space and design, shifting from a functional and operational position to one which promotes and enables the wellbeing of residents; and offers a paradigm shift in thinking about the central role of space in aged care facilities.

## THE THEMES OF PSYCHOTIC SYMPTOMS SEEN IN YOUNGER-ONSET DEMENTIA

BORELLI-MILLOTT Liam<sup>1</sup>, LOI Samantha<sup>1,2</sup>, VELAKOULIS Dennis<sup>1,2</sup>, GOH Anita<sup>1-3</sup>

<sup>1</sup> Melbourne Neuropsychiatry Centre, The University of Melbourne and Royal Melbourne Hospital

<sup>2</sup> Neuropsychiatry, NorthWestern Mental Health, Royal Melbourne Hospital

<sup>3</sup> National Ageing Research Institute

**Background:** Psychosis is characterised primarily by hallucinations, delusions, thought disorder and an overall disruption of an individual's ability to perceive reality. Psychotic symptoms are one of the many neuropsychiatric symptoms that may be present in individuals with younger-onset dementia. Psychotic symptoms include delusions and perceptual disturbances such as hallucinations, and cause significant distress, functional impairment, and reductions in quality of life. These psychotic symptoms may fall into discrete thematic classes characterised by their phenomenology and content. **Objective:** While prevalence of these symptoms is substantially documented in the existing literature surrounding younger-onset dementia, exploration of the themes and content of these symptoms in this cohort is limited mainly to case analysis. The primary objective of this study was to conduct robust thematic analysis of the psychotic symptoms present in individuals diagnosed with younger-onset dementia. **Methods:** This was a mixed methods study comprising of retrospective file review of *Neuropsychiatry* inpatient discharge summaries from admissions between 2018-2020. The data extracted included descriptions and prevalence of psychotic symptoms as well as general demographic and clinical data. Qualitative thematic analysis was conducted on the psychotic symptom descriptions **Results:** We identified several descriptive themes in the domains of delusions, hallucinations, and other psychotic symptoms. We will present this data, along with the clinical and demographic characteristics of the individuals with younger-onset dementia with psychotic symptoms. **Conclusion:** This study is novel in an area of focus with limited background research, with the published literature comprising mostly of case studies. Findings may potentially assist clinicians in understanding how psychotic symptoms present in younger-onset patients and assist in differential diagnoses.

## **YES, OLDER ADULTS ARE ONLINE AND WILLING TO DISCUSS SEXUAL HEALTH: RECRUITING PARTICIPANTS 60+ FOR AN ONLINE SEXUAL HEALTH SURVEY**

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Many older adults continue to be sexually active and consider sexual expression an important source of connection and pleasure. However, condom use is lower among older Australians than among younger ages, STIs are rising among older cohorts, and sexual health is not routinely addressed between older patients and their GPs. Older adults' sexual health may need more attention, and best practice in sexual health promotion and service provision may be different from that targeted to younger people. On the 31<sup>st</sup> of March 2021 we launched an anonymous online survey that sought to better understand older adults' sexual health information seeking behaviours (e.g. where do older adults look for sexual health information? What topics do they want to know more about?) with a view to informing future sexual health promotion initiatives for older Australians. Eligible participants were aged 60+ and living in Australia. We recruited participants through emails sent to relevant community groups and organisations, and through paid Facebook advertising. To date we have received 1464 responses. Female and male participants are represented close to equally (male 50.5%, female 49.0%, other identities 0.4% (n=6)), with an average age of 69 years old (range 60-91 years), and from all States and Territories. Just over half of the participants found the survey via a community group or organisation e.g. a club newsletter (51.5%), and 37.4% via Facebook. We report on our recruitment experiences for this online sexual health survey and reflect on the strengths and limitations.

## ACTIVITY ENGAGEMENT AND MEANING AMONG ADULTS IN AUSTRALIAN RETIREMENT COMMUNITIES

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**Background:** With an increase in the ageing population, there is growing demand for retirement accommodation in Australia. At present little is known about the ways adults living in these communities spend their time, how they perceive engagement in activity contributes to their health and wellbeing, and how their participation changes following transition to retirement community living. **Objective:** This research aimed to explore patterns of daily living amongst older adults living in Australian residential retirement communities. **Method:** A cross-sectional, multi-mode survey explored older adults' frequency and meaningfulness of participation in everyday activities, perception of the contribution everyday activities make to health, life satisfaction, and changes in performance and engagement over time. Data were analysed using descriptive statistics and correlation analysis. **Results:** Two hundred and seventeen respondents across six states and territories completed the bespoke survey. While men and women frequently engaged in similar everyday activities and life satisfaction was relatively high for both, frequency of engagement was higher in women. Respondents perceived that participating in everyday activities positively contributed to their health and wellbeing. Changes to activity participation occurred for almost half the participants following relocation. **Conclusion:** Participation in everyday activities contributes to health and wellbeing. Changes to levels of engagement in activities occurs following relocation to retirement communities. It is important that retirement communities design environments and support opportunities for participation in a broad range of meaningful everyday activities, if older adults are to thrive and survive in retirement living.

## DYNAMICS BETWEEN NEUROPSYCHIATRIC SYMPTOMS AND BIOMARKERS: A PILOT STUDY

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**Background:** The aetiology of neuropsychiatric symptoms (NPS) in dementia remains unclear, and it is challenging to distinguish neuropsychiatric manifestations related to younger-onset neurodegenerative diseases from those of primary psychiatric disorders. Neurofilament light chain (NfL) is a promising biomarker for axonal injury and has been found to differentiate between neurodegenerative diseases and primary psychiatric disorders.

**Objective:** To investigate NfL, especially its relationship with NPS and cognition, and compare it with traditional biomarkers, namely A $\beta$  and tau.

**Method:** Retrospective data for 54 patients with younger-onset dementia (YOD) was collated (mean age  $\pm$  SD,  $57.9 \pm 7.1$ , females  $n = 15$  [28%]). Of these, 23 had Alzheimer's disease (AD), 14 had frontotemporal dementia (FTD), 9 had mild cognitive impairment (MCI), and 8 were diagnosed with other types of dementia. Neuropsychiatric measures and levels of cerebrospinal fluid (CSF) biomarkers, including NfL, A $\beta$ -42, p-tau and t-tau, were extracted. **Results:** No significant associations between NPS, cognition and NfL was seen in patients with YOD. In the combined cohort, a positive correlation was found between the overall cognition and A $\beta$ -42 levels ( $r = 0.47$ ,  $p = 0.01$ ), and visuoconstruction was found to be positively correlated with A $\beta$ -42 levels ( $r = 0.44$ ,  $p = 0.03$ ) and negatively correlated with t-tau levels ( $r = -0.43$ ,  $p = 0.03$ ). In FTD, a positive correlation was found between stress and p-tau levels ( $r = 0.89$ ,  $p = 0.04$ ), and this correlation was stronger in patients without co-morbid psychiatric diagnoses ( $r = 0.93$ ,  $p = 0.03$ ). **Conclusion:** In patients with YOD, CSF NfL did not relate to NPS or cognitive performance. Instead, CSF A $\beta$ -42 and p-tau showed a linkage with cognitive functioning and stress, respectively. Therefore, traditional biomarkers, not NfL, may assist in the identification of patients who are at an increased risk of developing cognitive impairment and stress in such populations.

## DISPOSITIONAL OPTIMISM AND ALL-CAUSE MORTALITY IN OLDER ADULTS: A COHORT STUDY

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**Background:** Evidence suggests that optimism, a belief that the future will be positive, is not a fixed personality trait and can be promoted. Optimism may contribute to healthy ageing. **Objective:** To explore the association between dispositional optimism and all-cause mortality in community-dwelling adults aged 70 years and older. **Method:** The ASPirin in Reducing Events in the Elderly (ASPREE) trial of low dose aspirin recruited adults aged 70+ years, free of pre-existing cardiovascular disease, dementia, any life-limiting disease within five years and free of major physical disability between 2010 and 2014. ASPREE participants living in Australia were subsequently invited to enrol in the ASPREE Longitudinal Study of Older Persons (ALSOP) substudy. The primary outcome measure was optimism, assessed by the Revised Life Orientation Test (LOT-R). Cox proportional hazards models assessed the association between optimism (in quartiles) and all-cause mortality after adjusting for sociodemographic factors and health-related behaviours. **Results:** Complete data from ASPREE, including the LOT-R, was available for 11,701 individuals (mean age 75.1 years  $\pm$  4.24 SD; 53.4% women). During 4.7 years median follow up, 469 deaths were recorded. There was no independent association of optimism with all-cause mortality after adjustment for putative confounders, though age appeared to modify the effect of optimism on mortality. Among individuals aged 77 years and over at commencement, higher optimism was associated with lower mortality risk (HR: 95% CI: 0.39 – 0.96). **Conclusion:** We report that optimism was not independently associated with mortality, although for the oldest adults in our cohort (those aged 77 years or more) optimism seemed related to lower all-cause mortality risk. Further research is warranted to determine the factors linking optimism and mortality, especially in the oldest adults.



## A QUANTITATIVE STUDY OF DEMENTIA LITERACY AMONG FORMAL CARERS WORKING IN AGED CARE IN AUSTRALIA

### CRITCHLEY Ella

Charles Sturt University

**Background:** The growing incidence of dementia both globally and in Australia is a public health concern. People living with dementia want to remain autonomous and live independently in the comfort of their homes and communities. In Australia, formal carers provide the majority of care and support to people living with dementia under the aged care system. **Objective:** This research set out to better understand formal carers' dementia literacy within Australia, in order to provide evidence-based data to inform education, policy and practice within the aged care sector. As a result, the study aimed to answer the following research question "What is the dementia literacy of formal carers who provide care to people receiving home and community support or residential aged care within Australia?" **Method:** An online version of the Dementia Knowledge Assessment Scale 2 (DKAS 2) was distributed, with a convenience sample of 71 formal carers across five Australian states and territories. Respondents provided demographic information including education, hours worked per week and total length of time in the aged care sector. Dementia literacy (DKAS 2) was compared against demographic categories. **Results:** A diverse group of respondents in terms of age, length of time working in aged care completed the survey. Total time working in the aged care sector was positively correlated with an increase in dementia literacy, whereas hours worked per week and education were less positively correlated. Statements answered in regard to risks and health promotion of dementia were low at 52% of correct responses. **Conclusion:** The research findings will support recommendations from the Royal Commission into Aged Care Quality and Safety and the Aged Services Industry Reference Committee including the implementation of a skills development program for formal care staff in Australia in order to provide a sound skill set and knowledge base of dementia literacy.

## SOCIAL NETWORK TOOLS FOR OLDER ADULTS: A SYSTEMATIC REVIEW

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**Background:** Social network size and composition are associated with better physical and mental health outcomes. Older adults residing in the community and accessing aged care have limited social networks which can impact negatively on their health and wellbeing. Although measuring social networks has become conventional amongst researchers across disciplines, it remains unclear how social networks are measured, and which tool is most suitable. **Objective:** We aimed to identify, via a systematic review, a comprehensive list of social network measures used specifically for older adults and the dimensions covered by those measures. **Method:** To identify social network measures, a systematic search of MEDLINE, EMBASE, CINAHL, PsycInfo and Cochrane Library databases was undertaken. Domains within these measures were then categorised into quantitative, qualitative and alter domains. **Results:** A total of 229 studies and 21 social network measures were included. We identified a total of 23 domains; 11 for quantitative (e.g. size, frequency), 5 for qualitative (e.g. support satisfaction, emotional bond) and 7 targeting members (e.g., family, neighbours) dimensions. Common features of most measures were network size (n=19), availability of a support network (n=14) and existing family connections (n=21). **Conclusion:** This review provides a summary of instruments, their common features, and dimensions for measuring older adult social networks. This allows researchers to improve their study design by selecting instruments most appropriate to their objectives and may also present future opportunities for aged care providers to easily discern a psychometrically valid and reliable tool to monitor social connections over time.

## **INFECTIOUS DISEASES IN A LIFE CYCLE ECONOMY**

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Infectious diseases continue to challenge human survival and economic prosperity. The importance of endogenising the risk of infectious diseases into economic planning has thus become a global policy priority. Population ageing is another related policy challenge, emphasising the importance of designing viable policy mechanisms to manage the challenges jointly. In contrast to most of the existing studies which address the policy challenges in isolation, this study explores the viability of various policy responses to manage the challenges jointly. For this purpose, the study uses an overlapping generations economic framework. Agents are born as children and become young, middle-aged, and mature workers before retiring. In absence of infectious diseases, the agents only die after retiring. However, in presence of a fatal infectious disease, the agents face an exogenous risk of death which is homogenous within a given cohort yet increases as they age. When spending their tax- and productivity-adjusted wage income and asset returns to optimise their intertemporal utility, the agents factor in a healthcare investment, reflective of their susceptibility, in addition to their usual investments in capital and government bonds and consumption expenses. The government utilises the agents' cumulative health investments in addition to its own healthcare expenditure when managing the disease level in the economy. In addition to the basic model, the study also features several extensions to accommodate social security payments and an open economy. The simulations build on a baseline scenario only with population ageing to demonstrate the additional macroeconomic implications of infectious diseases. The study also simulates several policy options targeted at strengthening health systems, social security schemes for retirees and welfare transfers to other cohorts and demonstrate their potential to improve the macroeconomic implications. The study additionally demonstrates the capacity of monetary policies to accompany the fiscal interventions to enhance their overall policy effectiveness.

## THE RELATIONSHIP BETWEEN HEARING LOSS AND COGNITIVE IMPAIRMENT: AN ANALYSIS OF MANDARIN-SPEAKING OLDER ADULTS LIVING IN CHINA

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**Background:** Studies conducted with non-tonal language speakers have established a relationship between untreated age-related hearing loss and cognitive impairment and dementia. However, it's still unknown whether there is a similar association in tonal language speakers. Existing psychophysiological evidence suggests that a tonal language background might also be associated with enhanced pitch perception related cognitive abilities. This raises the question whether speaking Mandarin, a tonal language, is a protective factor for cognitive decline for older adults. **Objectives:** To investigate the association between untreated age-related hearing loss and cognitive impairment in Mandarin-speaking older adults living in China. **Methods:** 293 older adults (111 males, M=70.33±4.90 years; 182 females, M=69.02±4.08 years) were recruited. All participants completed a pure tone audiometric hearing assessment, Hearing Impairment-Montreal Cognitive Assessment Test (HI-MoCA), and a computerised neuropsychology test battery (CANTAB). The Mandarin version of the De Jong Gierveld Loneliness Scale was used to measure loneliness and the Mandarin version of the 21-item Depression Anxiety Stress Scale (DASS-21) was used to measure the current severity of a range of symptoms common to depression, stress, and anxiety. **Results:** A multiple stepwise regression analysis showed that the average of four mid-frequency (speech frequency range) thresholds in the better ear was related to CANTAB Paired Associates Learning ( $\beta= 0.20$ ,  $p= 0.002$ ), and the global cognitive function score (HI-MoCA), ( $\beta= -0.25$ ,  $p<0.001$ ). The average of three high frequencies (which showed decline earlier than the mid-frequency in older adults) in the better ear was significantly associated with CANTAB Delayed Matching to Sample ( $\beta= -0.16$ ,  $p= 0.008$ ), and Spatial Working Memory ( $\beta= 0.17$ ,  $p= 0.003$ ). **Conclusion:** The results revealed a significant relationship between age-related hearing loss and cognitive impairment in Mandarin-speaking older adults. These research outcomes have clinical implications specifically for hearing health care professionals in China and other populations that speak a tonal language, especially when providing hearing rehabilitation.

## **BELONGING ONLINE: OLDER ADULTS' USE OF INTERNET FOR SUPPORT AND COMMUNITY**

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**Background:** The benefits of older adults using computers as a tool for communication and social interactions have been demonstrated. The way in which these individuals use computer-mediated communication (CMC) to access the social networks and communities to which they belong is less well known. **Method:** Semi-structured telephone interviews with 12 adults (five women, seven men; aged 69-81) were conducted during the first wave of COVID-19 in Australia in 2020. Questions focused on the use of CMC to engage with social networks and communities online. Interviews were transcribed and thematically analysed under the lens of inductive experiential realism to better understand the lived experience of older adult computer users and, in particular, their use of technology to maintain communication with others during this time of social interruption. **Results:** Two overarching themes related to Belonging and Support emerged. Belonging was emphasised, with sub-themes describing participants' experiences with their close social networks online as well as how they used CMC to build their interests and identity. Support emerged as a lesser theme, and included subthemes around how CMC was used as a method to exchange support and signal need and availability to others. **Conclusion:** For older adults who use CMC, a sense of belongingness within one's community and social networks online is critical. The potential CMC offers for reciprocal support is also important. These findings may be useful in guiding the development of programs which encourage the use of CMC for social purposes, as seen in recent Australian Government initiatives, such as *Be Connected* and the *Seniors Connected Program*.

## **LIFE STORIES, DEATH STORIES: RESIDENTIAL AGED CARE WORKERS RELATIONSHIP WITH DEATH**

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This study examined how Assistants in Nursing (AIN) prepare to work with people who are dying and how AIN own meaning-making of death impacts their preparedness and response to end of life care. Australia has the most institutionalised death in the world with around a third of people aged over 65 years being cared for in residential aged care (RAC) as they die. AIN, who represent around 70% the RAC workforce have the closest contact with those dying. This paper reports the findings from my PhD research where I interviewed ten AIN across two RAC facilities in Australia, participating in three interviews each, approximately 4-8 weeks apart using a Narrative Analysis framework. Four Registered Nurses and three managers were interviewed to determine organisational narratives as a comparison with AIN personal narratives. This study found that AIN commence work with existing death narratives and these dynamic narratives evolve in complex and unique ways. Daily work sees AIN facing their own mortality, engaging in confronting aspects of death care, the death of loved residents, and peer and organisational narratives. Working in RAC can be challenging and confronting and AIN often feel unprepared for providing end of life care and post mortem care, leaving some AIN with experiences of trauma. Policies are needed that acknowledge RAC as places of death. Acknowledging the important role played by AIN who provide the closest care with those dying will better equip facilities to train and support workers as they encounter death, particularly in the initial months of their roles. Supported workers may then be better placed to have a greater understanding of their reactions to death and the flow on effect this may have on the care they provide to people who are dying.

## BARRIERS AND ENABLERS TO HEALTH AND SOCIAL SERVICES FOR OLDER PRISONERS TRANSITIONING TO COMMUNITY

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**Background:** When properly designed and implemented, prison to community transition programs targeting older prisoners could potentially save resources, reduce reoffending rates and contribute to improved public protection and safety. However, older prisoners transitioning to community are often neglected and overlooked, and thus interventions targeted to address their needs are limited. **Objective:** The purpose of this study was to identify barriers and enablers to health and social services for older prisoners transitioning from prison to community. **Method:** A qualitative study was conducted using focus group discussions (FGDs) with corrections officers, community corrections officers and parole officers (N=32) in four prisons, two community corrections offices and one parole unit in New South Wales, Australia (NSW) in 2019. We used thematic analysis to analyse the findings. **Result:** The study identified three main themes relating to barriers and enablers: 1) organisational, 2) social and economic, and 3) individual and family; and seven sub-themes: i) planning the transition, ii) communication, iii) assisting prisoners, iv) transition programs, v) officers' knowledge and scope of work, vi) social and economic issues, and vii) offenders' conditions. **Conclusion:** The processes required to ensure effective prison to community transition of older prisoners are not well developed, suggesting the need for more systemic and organised mechanisms. Implications of the barriers and enablers for policy, research and practice are discussed.

## **“IS MY JOURNEY DESTINATION HOME?” EXPERIENCES OF OLDER ADULTS WHO UNDERTAKE A TRANSITION CARE PROGRAM IN A FACILITY SETTING**

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This study explored the journey of older adults undertaking a facility-based Transition Care Program (TCP) to understand and learn from their experiences by examining personal, family and staff perspectives. TCP aim to maximise older adults' independence and improve the likelihood of discharge home after hospitalisation through provision of goal-oriented rehabilitation. However, there is limited research on the impact of TCP and current evidence reports only 21.4% of those participating in facility-based TCP return to community living. Therefore understanding older adult's experiences from a range of perspectives has potential to increase the effectiveness of the rehabilitation provided and consequently improve outcomes. A qualitative phenomenological approach using semi-structured interviews was undertaken with a purposive sample of 33 participants (n=16 older adults, n=4 family members, n=13 staff). Older adults reflected on their TCP experiences through an emotional lens describing their journey as one of great uncertainty. Staff and family concurred that many older adults were confused about their admission to TCP as they expressed limited understanding about its context and expectations of what TCP entailed. Physical, mental, and emotional wellbeing, including ability to master skillsets to regain functional independence coupled with grief and anxiety regarding loss of existing life roles, impacted older adults' motivation to engage in the rehabilitation provided. Understanding the purpose of TCP, having clear goals, being able to manage expectations and having family support were identified as enablers that improved older adults' experience of TCP. These findings can inform the design and development of education materials that could assist older adults and their families preparing to undertake and navigate transition care. Staff could also benefit from resources and training to better tailor rehabilitation and emotionally support older adults at this transient time of life.



## EXPOSURE-RESPONSE RELATIONSHIPS BETWEEN VITAMIN D STATUS AND COGNITIVE PERFORMANCE: A CROSS-SECTIONAL ANALYSIS IN MIDDLE TO OLDER-AGED ADULTS IN THE BUSSELTON HEALTHY AGEING STUDY

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**Background:** Low vitamin D status is consistently associated with poorer cognition and cognitive decline in older adults. However, findings in relation to higher vitamin D status have been mixed. A better understanding of the relationship across the range is required to determine optimal vitamin D status for healthy cognitive ageing. **Objective:** We aimed to investigate potential exposure-response relationships between vitamin D status and cognitive performance across multiple domains. **Methods:** A cross-sectional analysis was performed using data from 4872 participants of the community-based, Busselton Healthy Ageing Study who were free of dementia (mean age = 58 years, 55% women). Serum 25-hydroxyvitamin D (25OHD) levels, the standard measure of vitamin D status, were measured using chemiluminescent assay. Cognitive performance was assessed using a computerized battery of attention and memory tasks, stand-alone tests of verbal fluency and the mini-mental state examination. Relationships were examined in multivariate regression models, controlling for demographic, lifestyle, and health factors. Restricted cubic splines were used to assess nonlinearity. **Results:** Mean  $\pm$  SD serum 25OHD levels were  $78 \pm 24$  nM/L for women and  $87 \pm 25$  nM/L for men. Increasing levels in women were associated with better global cognition (linear trend,  $p = 0.023$ ) and attention accuracy, with improvement in the latter plateauing around levels of 80 nM/L (non-linear trend,  $p=0.035$ ). In men, increasing levels of serum 25OHD were associated with better attention accuracy (linear trend,  $p=0.022$ ) but poorer semantic verbal fluency (linear trend,  $p=0.025$ ) and global cognition (non-linear trend,  $p=0.015$ ). **Conclusion:** Several patterns were identified that may reflect early, exposure-response relationships between vitamin D status and cognitive performance in these middle to older-aged adults. Most notable was the distinct decline in attention accuracy associated with low vitamin D status in women. Longitudinal analyses that extend through to older ages are needed to further explore these relationships.

## BIOLOGICAL RESILIENCE, LONGEVITY AND THE ROLE OF RESISTANCE TRAINING

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**Background:** Ageing is associated with various physiological and psychological changes that can decrease biological resilience and physical and cognitive functioning. Evidence suggests a strong association between health-related lifestyles and higher functionality of individuals with high resilience. Resistance training confers resilience among older adults by triggering many metabolic pathways that make the organism more adaptable to environmental stressors, thus enhances natural elasticity, and improves longevity. **Objective:** This review discusses the biological mechanisms underlying the beneficial effects of resistance training and its role in biological resilience, inflammation, and health-related quality of life in older adults. It further discusses the impact of resistance training intensity on the amplification of anti-inflammatory myokine cascades and their contribution to biological resilience and longevity, including their potential influence on cognitive function. **Methods:** Results from cross-sectional, longitudinal, and intervention studies will be discussed to identify future avenues of research to advance the evidence supporting resistance training as an important mechanism of improving longevity in older adults. **Discussion:** Given the limited evidence exploring the effects of resistance training, particularly at higher intensities, this review will further support the concept that physically active older adults may maintain their health and adapt to the challenges of ageing. Resistance training may be an essential exercise modality to prescribe for successful ageing. It is anticipated that resistance training will trigger a chain reaction of improvements beyond muscular strength and physical capability, leading to improved biological resilience and overall quality of life in older adults.

## FALLS AND PHYSICAL ACTIVITY IN AUSTRALIAN OLDER WOMEN

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**Background:** Falls and physical inactivity are common among older adults. The relationship between falls and physical activity (PA) may change over time. The Australian Longitudinal Study on Women's Health provides an opportunity to explore falls and PA in women of different generations. This study compared falls and PA in two different birth cohorts and examined the association between falls and PA. **Method:** Self-reported falls in the previous year were assessed from 10,434 women born 1921-26 (mean (SD) age: 74.9 (1.5) years, 1999 survey) and 8,622 born 1946-51 (67.1(1.5) years, 2016 survey). The metabolic equivalent value (MET) of self-reported PA in the past week was dichotomised into: 1) whether meeting the lower limit of PA guideline ( $\geq 600$  MET minutes/week); and 2) some PA participation ( $\geq 40$  MET minutes/week). Multivariate logistic regression examined the association between falls, PA and birth cohort. **Results:** Fewer participants in the 1921-26 cohort reported 1+ falls in the previous year compared to 1946-51 cohort (23.4%, 95% CI 22.5 to 24.2; 26.5%, 95% CI 25.5 to 27.4 respectively,  $p < 0.001$ ). Fewer women in 1921-26 met PA guideline than those in 1946-51 (35.1% versus 57.6%) with fewer reporting some PA participation (67.8% versus 83.0%) (both  $p < 0.001$ ). The relationship between falls and PA did not differ between the two cohorts ( $p = 0.94$  for meeting PA guideline and  $p = 0.24$  for some PA participation). The odds of falls were lower among those who met PA guideline (OR 0.76 95% CI 0.68 to 0.85) compared to those who did not, and among those who had some PA participation (OR 0.73 95% CI 0.65 to 0.81) compared to those who were sedentary. **Conclusion:** While the older generation reported fewer falls and less PA, the association between PA and falls was constant across two cohorts. PA participation was associated with fewer falls in older adults.

## **FACTORS ASSOCIATED WITH PSYCHOTROPIC MEDICATION USE IN PEOPLE LIVING WITH DEMENTIA IN THE COMMUNITY: A SYSTEMATIC REVIEW**

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**BACKGROUND:** There has been considerable focus on the use of psychotropic agents in people with dementia living in residential aged care facilities (RACF). However growing literature suggests that psychotropic use is often commenced well before placement in a RACF, with limited understanding of the factors associated with and underlying reasons for this use. It is not known whether psychotropic medications commenced prior to RACF admission are initiated in an attempt to delay placement, manage carer stress, or reduce target symptoms. **OBJECTIVE:** To synthesise the available literature relating to the identification of factors and characteristics of people living with dementia, their carers, their prescribers, and general system/environmental factors that are associated with psychotropic medication use in people living with dementia in the community. **METHOD:** A systematic review was conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) format. A comprehensive search of the databases EMBASE, MEDLINE, PUBMED and PSYCHINFO was conducted to identify primary studies examining the use of psychotropic medications in people living with dementia in the community. The search was conducted according to predefined inclusion and exclusion criteria from January 2010 to May 2021. Articles were independently screened and assessed for eligibility for inclusion. The final group of articles was independently reviewed by two authors using a standardised data extraction tool, which included assessment of methodological quality and level of evidence (Oxford Evidence Based Medicine). **RESULTS:** The initial database search revealed 257 citations and review for final inclusion and further assessment of quality is underway. **CONCLUSION:** Understanding the factors associated with psychotropic medication in people with dementia in the community is a critical step in being able to improve quality and delivery of care, implement targeted and effective programs and enhance wellbeing in this hitherto neglected patient group.

## **BARRIERS AND FACILITATORS TO CLINICAL TRIAL RECRUITMENT AND RETENTION OF OLDER PEOPLE: A MIXED-METHODS STUDY**

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Older people are under-represented in clinical trials, either directly through age cut-offs or indirectly via other exclusion criteria that disproportionately exclude older participants. Such under-representation has substantial knock-on effects in terms of safety and quality in health care – it limits the generalisability of trial results and excludes older people from evidence-based management. This mixed-methods study aims to examine the barriers and facilitators to recruitment of older people in clinical trials, looking at the decision pathways, processes and critical points at which decisions about clinical trial participation are made. In particular, the project aims to examine the factors that mediate access to clinical research, including the key issues facing researchers, ethics committees, prospective participants and referring clinicians, and whether age cut-offs or other exclusion criteria are justified in the context of the scientific question being asked. This presentation outlines the initial phase of the project – the findings from a review of international clinical trial inclusion policies and guidance that address the recruitment and retention of older trial participants. Approaches vary markedly. For example, in 1993 a multiregional group developed a framework for including older people in research, and this was subsequently endorsed and implemented by regulatory authorities in Europe, the US and other countries. US regulatory bodies went further in 2019, adopting the Inclusion Across the Lifespan policy. This policy stipulates that all publicly-funded research must address plans for including individuals across the lifespan, and any age-related exclusions must include a rationale and justification based on a scientific or ethical basis. In contrast, Australian clinical trials guidance does not discuss the issue of age-based representation. The next stage of the project will examine Australian trial protocols and results to assess the use of upper age cut-offs, and assess stakeholder views regarding facilitators and barriers to the participation of older trial participants.

## STORYTELLING AS CO-DESIGN METHOD WITHIN LONG TERM CARE HOMES

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As the Covid-19 pandemic enters its second year of global influence, its impact continues to dominate the lives of people living in long term care homes (LTC). Now more than ever, people living in LTC are acutely aware of how living in an institutional environment differs from living in private and family homes; and are eager to share their current care experiences with researchers, decision makers, and people outside of the LTC community. As a designer working in a LTC context, a central question to my practice was how people living in LTC could be supported in sharing their stories and experiences of care, using co-design research methods. This presentation shares personal insights and reflections gathered from interactive workshops, photovoice activities, and interviews hosted between myself as a design researcher working with Emily Carr's Health Design Lab, Vancouver Coastal Health, and people living in LTC homes across the Vancouver Lower Mainland. Each of these co-design activities illustrate how storytelling can be centred within a design research framework to allow for open and honest insights from co-designers within ageing populations. With these reflections of my in-process work, I hope to share how incorporating storytelling activities into design research spaces has helped strengthen the relationships between myself as a researcher and my co-researchers. I also hope to offer my insights gained from working with stories in a research context, and advocate for trauma informed practices for the health and wellbeing of both research participants and researchers.

## COMPARISON OF THREE DEMENTIA PREDICTION MODELS USING THE HUNTER COMMUNITY STUDY COHORT

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**Background:** It is important to assess the performance of different dementia prediction models for incident dementia in the Australian context. **Objective:** To investigate the predictive performance of three dementia prediction models in an Australian cohort. The models were CAIDE (Cardiovascular Risk Factors, Aging, and Incidence of Dementia), ANU-ADRI (Australian National University- Alzheimer's Disease risk Index) and the LIBRA (Lifestyle for BRAin health) index. **Method:** The study included people aged 55 to 85 years at baseline who resided in Newcastle, Australia, and were part of the Hunter Community Study (HCS), a population-based cohort study. The sample size was 3308 with mean follow-up of 7 years. Data collection comprised self-reported questionnaires, clinical assessments and data linkage. Incident dementia was determined by the dispensing of cholinesterase inhibitors or memantine, ascertained through linkage to the Pharmaceutical Benefits Scheme (PBS) and the ICD-10 codes from Admitted Patient dataset from Centre for Health Record Linkage. The models were compared based on the mean scores given to people with and without dementia and measures of calibration and discrimination. Multiple imputation was performed for missing data. **Results:** The mean (SD) scores for people with and without dementia were: CAIDE [12.54 (1.67) vs 12.16 (1.86),  $p=0.047$ ]; ANU-ADRI [9.71 (10.51) vs 3.07 (8.67),  $p=0.001$ ] and LIBRA [10.14 (4.63) vs 7.17 (3.73),  $p=0.001$ ]. The average estimated risk by CAIDE was 0.039 (0.03), and ANU-ADRI was 0.31 (0.11). The calibration slope and intercept for CAIDE and ANU-ADRI were 0.0098 and 0.065, and 0.0002 and 0.882, respectively. The discrimination values of the models were CAIDE [0.56 (0.030)], ANU-ADRI [0.68 (0.031)] and LIBRA [0.692 (0.032)]. **Conclusion:** All three models assigned significantly higher scores for people who developed dementia. CAIDE and ANU-ADRI overestimated the average risk for development of dementia in the cohort. Discrimination was greater for LIBRA and ANU-ADRI compared to the CAIDE.

**ASSOCIATION BETWEEN FRAILTY AND INFECTION WITH SARS COV-2: A COHORT STUDY**

**MORWAL Prashant**

University College of Medical Sciences

*Abstract forthcoming*



## CARE DISRUPTION: IMPLICATIONS FOR CARE ETHICS AND OLDER PEOPLE'S SOCIAL CARE IN A LOW-INCOME COUNTRY CONTEXT

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**Background:** Ethics of care is the most commonly used theoretical perspective in research on care. The theorisation of care ethics has been grounded in the Western societies of Europe and North America, drawing on care as practised in the global North. Care theorists have thus argued that care ethics needs to be considered beyond the global North by examining the diversity of care practices globally. Although the literature on care for older people has progressed over the last decades, there is limited application of theories in understanding how care responsibility is allocated in low-income countries. **Objective:** This study adopted Tronto's care elements (attentiveness, responsibility, caregiving, responsiveness and solidarity) to understand how social care responsibilities for older people are allocated or assumed in rural Uganda. **Method:** This transformative study included policy analysis of four national policy documents, in-depth semi-structured interviews with 21 key stakeholders and 19 rural older people receiving care, alongside focus groups with 40 rural caregivers. It employed trace method to analyse policies and thematic analysis to analyse findings from stakeholders, caregivers and older people. **Results:** Findings highlighted the challenges, risks, and complexities that disrupt care responsibility, processes and practices. Findings imply that formal and informal care for older people in rural areas is inconsistent and fragmented due to care disruptions across the phases of care. **Conclusion:** Consideration of care disruptions in the ethics of care is important in understanding care practices and the social care system within the Global South context, which experiences differing levels of vulnerability compared to Global North regions.

## MULTIDISCIPLINARY HEALTH PROFESSIONALS' TRANSFER DECISION MAKING FROM HOSPITAL TO RESIDENTIAL AGED CARE

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Western Sydney University

**Background:** Older people are often healthy yet are more likely to require assistance to complete the activities of daily living. While some may receive assistance in the community, others will require a higher level of care that can be provided in a residential aged care facility. The transition to residential aged care can be a challenging time, especially if the transfer decision is made because of a sudden change in health. Multidisciplinary health professionals have a key role in the transfer decision to residential aged care, but it was previously unknown how they make these decisions. **Objective:** This paper reports the findings of my doctoral thesis that explored multidisciplinary health professionals' lived experience of transfer decision making from hospital to residential aged care. **Methods:** A phenomenological approach informed by Husserl and Colaizzi was used in this qualitative study. Through phenomenological interviews and observation of multidisciplinary health professionals making these decisions, a deeper understanding of this complex process was developed. **Results:** Three major aspects were disclosed through the application of the phenomenological approach to the interview and observation data. The health professionals identified cues and triggers, learnt over time to make transfer decisions, despite the lack of any formalised discharge planning education. The collaborative decision process was often associated with conflict. This was especially evident when making difficult transfer decisions with limited time or support to navigate the process. **Conclusions:** This research provided an initial understanding of this complex process. Implications derived from the findings in this study include ensuring the older person's wishes are central to the transfer decision, involving the registered nurse, who is caring for the patient, in the transfer decision making process as well as establishing multidisciplinary transfer assessments and education for health professionals in this challenging process.

## THE BARRIERS AND FACILITATORS TO DELIVER ORAL CARE FOR OLDER ADULTS IN HOSPITAL SETTINGS

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**Background:** Hospitalised older adults often experience deconditioning and frequently develop aspiration pneumonia. These form a potential vicious cycle that is connected by swallowing dysfunction (dysphagia) and sarcopenia during hospitalisation. Many studies indicate that oral hygiene care can prevent aspiration pneumonia and improve hospitalised older adult health outcomes. However, despite being an essential nursing care that restores oral function and promotes patient wellness, it is one of the most neglected nursing interventions. **Objective:** This study aimed to identify the factors that impede nursing delivery of oral health care and determine what is required to overcome these barriers. **Method:** Mixed methods is employed for the study, and the data from 176 questionnaires and 13 interviews were collected from nurses and health care assistants (HCAs) in medical and surgical wards in North Shore and Waitakere hospitals. **Results:** The results of quantitative and qualitative data analysis indicated three main barriers to oral care delivery: 1. Oral care practice gaps and barriers; 2. Insufficient oral care delivery training; and 3. Lack of oral care protocols and policies. The most prominent barriers identified by nursing staff from the questionnaires were patients' challenging behaviours, and a lack of time, priority, and tools. The results also indicated that current oral health education and training were not effective to support delivery of oral care, and that these problems are resulted from a lack of oral care protocols. **Conclusion:** There is an urgent organisational level of support to establish oral care protocols in hospitals. These improvements on organisational level of support, education, and establishment of protocols in oral health care will, in turn, benefit hospitalised older adults by preventing aspiration pneumonia and deconditioning. In the long term, the positive health outcomes in patients will empower nurses and HCAs to deliver consistent oral care through evidence-based practice and protocols.

## **ASSOCIATION BETWEEN INDOOR AIR POLLUTION AND COGNITIVE FUNCTION OF OLDER ADULTS IN INDIA: A CROSS-SECTIONAL STUDY**

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Previous studies on air pollution and health were mainly confined to outdoor air pollution. However, in recent decades, attention has been drawn to indoor air pollution. Over half the world's population, mostly from developing countries, use solid fuel for domestic purposes, and are therefore exposed to very high concentrations of harmful air pollutants with potential health effects. Older people may be at increased risk of exposure to indoor air pollution due to their higher prevalence of sedentary lifestyle and chronic health conditions. Compared with ambient air pollution, little is known about cognitive health impacts in relation to indoor air quality in India. Therefore, this study explores the association between the markers of indoor air pollution and cognitive health of older adults in India controlling for various socioeconomic and health covariates, using data from wave 1 of the Longitudinal Aging Study in India (LASI). Bivariate analysis and Multivariable Linear regression models were utilised. The study suggests that around 45% of households in India were exposed to solid fuel. Our findings indicate that indoor air pollution is strongly associated with cognitive function among older adults. The results show lower cognitive function among older adults in households using solid fuel. Further, the effect of indoor air pollution on cognitive impairment was greater for women. The research concludes that indoor air pollution may be a potential risk factor in shaping cognitive function. Given the large proportion of Indian population relying on solid fuel for domestic use, and the ageing population, there is a pressing need for more research to inform policy in this area.

# EFFECT OF COGNITIVE TASK COMPLEXITY ON DUAL TASK POSTURAL STABILITY: A SYSTEMATIC REVIEW AND META-ANALYSIS

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**Background:** The control of postural stability was originally considered an automatic process regulated by brainstem and spinal cord neuronal circuits. However, subsequent evidence suggested otherwise implying that the process may be attention demanding and thus require cognitive resources. Dual task experimental paradigm is used to probe the attentional requirements of postural control. Performing dual tasking may lead to a decrease in postural stability due to attentional resource competition. However, findings from dual task postural studies have been inconsistent; many studies report improvement in postural stability, thus raising questions about cognitive involvement in postural control. A U-shaped relationship has been hypothesised between cognitive task complexity and dual task postural stability, suggesting that the inconsistent results might have arisen from the use of cognitive tasks of varying complexities. The aim of this review is to investigate whether simple cognitive tasks affect postural stability differently compared to complex cognitive tasks during dual tasking.

**Methods:** Seven databases were searched to identify studies comparing the effects of simple and complex cognitive tasks on dual task postural stability in adults. **Results:** 33 studies met the inclusion criteria, 17 of which were included in meta-analysis. Although simple and complex cognitive tasks produced effects which slightly differ in size, sub-group analysis revealed that the difference is not statistically significant ( $P > 0.1$ ). Importantly, the direction of the effect was unrelated to the complexity of the cognitive task, with older age identified as playing a key role. During quiet standing, dual tasking improves postural stability in young adults and reduces it in older adults. With increasing postural task challenge, dual tasking reduces postural stability in both populations. **Conclusion:** Findings of this review do not support the U-shaped hypothesis. Rather, the results suggest that attentional requirement of postural control in healthy populations depend on the age and complexity of the postural tasks.

## DEVELOPMENT OF A NEW COMPUTER SIMULATED ENVIRONMENT TEST TO SCREEN FOR COGNITION IN OLDER ADULTS

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**Background:** Existing traditional cognitive screening tools for dementia have limitations, including an emphasis on measuring memory and executive function in isolation from other factors. Virtual reality can provide a dynamic and unique understanding of cognitive function and present a more ecologically valid assessment. However, evidence for its use remains sparse. **Objective:** Our primary aim was to examine the feasibility and acceptability of a newly developed, computer module 'LEAF CAFÉ' which simulates a café environment. Our secondary aim was to assess the module's ability to discriminate between cognitively intact and cognitively impaired participants. **Methods:** A cross-sectional study was conducted in Sydney, Australia, where adults aged 65 years and over were recruited. Participants completed a traditional cognitive screening assessment (TICS-M) and participated in LEAF CAFÉ, a computerised game that assessed their learning and memory, perceptual-motor function, and executive function between March to May 2021. The total performance score (range: 0-165) or levels completed (range: 0-5) of the game was correlated against the scores on TICS-M using Pearson's correlation coefficient. At the end of the module, a questionnaire was administered to capture participants' perception of and attitude towards the module including its practicality, acceptability, and enjoyment. **Results:** A sample of 98 participants (mean age 72.2, SD=5.4, range 65-91) took part in the study. The majority were female (73.7%) and born in Australia (70.3%). The mean amount of time spent on the game was 34.3 minutes (SD=26.24) with a mean performance score of 84.34 (out of 165, SD=45.55). Most participants completed the highest level (5; 57.7%). Most agreed that the module was easy to use (78.3%) and to navigate (87.7%). There was no significant correlation between number of completed levels and game total score with cognitive status or cognitive score ( $p>0.05$ ). **Conclusions:** LEAF CAFÉ is a feasible and acceptable tool to be used for screening for cognitive impairment in older adults and has real-world assessment value. Further verification on the game's utility in detecting cognitive function is required.

## GENERAL PRACTITIONER'S ATTITUDES AND BEHAVIOURS REGARDING CANCER SCREENING IN OLDER ADULTS: A QUALITATIVE STUDY

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**Background:** Many older adults continue to be screened for cancer with limited knowledge of the potential harms. General practitioner's (GP's) attitudes and behaviours likely play an important role in communication and decision-making around cancer screening for older people. **Objective:** To investigate general practitioners' (GPs') attitudes and behaviours regarding cancer screening (breast, cervical, prostate and bowel) in patients aged  $\geq 70$  years (given that national breast and cervical screening programs only recently extended to target women aged 70-74). **Method:** Semi-structured interviews were conducted with GPs practising in Australia (n=21). Participants were recruited through multiple avenues to ensure variation in experience and geographic location (e.g., GP networks, social media, cold calling/emailing). Transcribed audio-recordings were analysed thematically. **Results:** GPs described varied attitudes and behaviours regarding cancer screening in older people. Some only initiated screening discussions with patients younger than what they understood to be the upper age limit of screening programs (i.e., 69 or 74 years). Others initiated screening discussions outside screening programs and guidelines as they felt that decisions should be based on functional not chronological age. When navigating patient-initiated screening discussions outside guidelines, many GPs felt it was most important to tailor their response to why the older person wanted to have the screening test. After providing information about the recommendations and potential benefits and harms, patient responses included relief or happiness to finish screening, insistence on continuing (especially for PSA screening) and in some cases, offence that they were no longer eligible (more likely from women). **Conclusion:** There is no uniform approach to cancer screening communication and decision-making for older adults in general practice. Given the role of patient preference, tools to support effective communication of the reduced benefit and increased chance of harm from cancer screening in older age may help support older people to make more informed screening choices.

## EVIDENCE OF POTENTIAL OVERTREATMENT AND UNDERTREATMENT OF TYPE 2 DIABETES MELLITUS IN RESIDENTIAL AGED CARE: A SYSTEMATIC REVIEW

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**Background:** Glycaemic overtreatment and undertreatment of type 2 diabetes (T2DM) can lead to unplanned hospitalisations for hypoglycaemia and hyperglycaemia, respectively. **Objective:** To investigate the prevalence, outcomes, and factors associated with potential glycaemic overtreatment and undertreatment of T2DM in residential aged care facilities (RACFs). **Method:** This systematic review was conducted according to the PRISMA checklist and flow diagram. Using pre-defined subject headings and truncated search terms, articles published between January 2000 and September 2020 were retrieved from a systematic search of 4 key electronic databases and grey literature. Inclusion criteria were the reporting of (1) potential overtreatment and undertreatment quantitatively defined based on haemoglobin A1c (HbA1c) and/or blood glucose; (2) prevalence, outcomes, and associated factors of potential glycaemic overtreatment and undertreatment; and (3) the study involved residents of RACFs. A protocol was published prospectively on PROSPERO 2019 (CRD42019120029). **Results:** Fifteen studies were included. Prevalence of potential overtreatment (5%-86%, n=15 studies) and undertreatment (1.4%-35%, n=8 studies) varied widely among facilities and geographical locations, and according to definitions used. No studies prospectively measured resident health outcomes from overtreatment and undertreatment. Potential overtreatment was positively associated with use of oral Glucose Lowering Medications (GLMs), dementia diagnosis or dementia severity, and/or need for assistance with activities of daily living (n=2 studies). Negative association was found between potential overtreatment and use of insulin/combined insulin and oral GLMs. No studies reported factors associated with potential undertreatment. **Conclusion:** The results indicate wide variations in the prevalence of potential glycaemic overtreatment and undertreatment among residents with T2DM. Investigation of actual glycaemic overtreatment and undertreatment in RACFs requires data from longitudinal studies examining associations between glycaemic management and health outcomes. The use of consensus definitions of overtreatment and undertreatment would also be important.



## CURRENT PHYSIOTHERAPY MANAGEMENT OF PARKINSON'S DISEASE: IS AQUATIC PHYSIOTHERAPY UTILISED AS A TREATMENT MODALITY?

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**Background and objective:** Little is known about current physiotherapy practice for people with Parkinson's disease (PD). The use of aquatic physiotherapy in this population is also unknown. The aim of this study was to investigate current clinical practice in aquatic physiotherapy and identify the types of interventions used by physiotherapists to treat people with PD. **Methods:** Physiotherapists currently treating people with PD were invited to participate. An online survey collected demographics and data regarding intervention types and current clinical practice. Data were analysed using descriptive statistics and potential differences in levels of confidence treating people with PD or using aquatic physiotherapy with years practicing as a physiotherapist were explored. **Results:** 126 physiotherapists accessed the survey and 113 (90%) completed it. Majority were female (n=101, 88%), aged between 30-39 (n=42, 37%) and Australian (n=97, 86%). 56% (n=64) had been practicing for more than 11 years. One third of participants (n=39, 35%) reported using aquatic physiotherapy to manage people with PD. Several challenges when treating people with PD in the aquatic environment were identified, most commonly the increased risk of falls (n=35, 90%) and medical fragility (n=32, 82%). Participants reported using a wide range of non-aquatic interventions for people with PD. There was also no difference in confidence levels among participants who used aquatic physiotherapy for people with PD in terms of years practicing ( $p = 0.13$ ). **Conclusions:** Aquatic physiotherapy is not well utilised for people with PD. Several therapist, environmental and participant challenges were identified. Further therapist education and updated clinical practice guidelines for PD are needed.

## SUCCESSFUL AGEING IN GREEK MIGRANTS COMPARED TO RESIDENT GREEK COUNTERPARTS: MEDIS-AUSTRALIA STUDY

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**Background:** A health advantage persists among ageing first generation Greek-born Australian migrants compared to other groups and the Australian-born population –demonstrated by national mortality data by country of birth. Past studies identified resistance to dietary acculturation but successful ageing, cuisine and factors which facilitate adherence to a healthy traditional Mediterranean diet pattern (Med Diet) were not explored. The MEDiterranean IslandS study [MEDIS] reported closer adherence to a traditional diet and more successful ageing among resident Greek Islanders (GI) compared to mainland Greece counterparts. Successful ageing attributes—including diet quality have not previously been examined among migrants nor compared to counterparts in Greece. A diminishing window of opportunity exists to examine previously unexplored characteristics among Greek Australian Island-born migrants (GAI). **Objective:** To examine successful ageing—and its attributes, among GAI compared to GI. **Method:** MEDIS-Australia—modelled on MEDIS and modified for local relevance examines a range of characteristics of GAI against a matched comparator group. Baseline data were collected for GAI aged 65 years or older, free from cardiovascular disease, active cancer and cognitive decline (n=146). A detailed questionnaire was interviewer-administered. Comparator data was provided for GI (n=146). The validated MedDietScore (0-55) and Successful Ageing Index (SAI, 0-10) were used to evaluate diet adherence and successful ageing. **Results:** GAI have a moderately high diet adherence and are ageing as successfully as resident GI and more so, according to SAI attributes including a higher diet quality, frequent physical activity and higher financial well-being and education level respectively. Non-SAI attributes—Australian residence, male gender and low sedentariness—contribute to successful ageing. GAI retain traditional sociocultural characteristics—fasting, cuisine and homegrown food gardening—despite long-term residence. **Conclusion:** Future Australian migrant studies could examine within- and cross-country differences in unexplored exposures such as health service utilisation and sociocultural characteristics as predictors of successful ageing.

## HEARING IMPAIRMENT AND FRAILITY IN LATER LIFE

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**Objective:** To determine if hearing loss is associated with increased risk of frailty in later life. **Method:** Cross-sectional study of a community sample of 4,004 men aged 70 years and above living in the metropolitan region of Perth, Western Australia. Data were retrieved from the Health in Men Study (HIMS) and the Western Australian Data Linkage System (WADLS). Frailty was assessed using the FRAIL scale and the Frailty Index. Hearing loss was defined by self-report or by diagnosis recorded in the WADLS. We also collected demographic, lifestyle and social support information. **Results:** The prevalence of frailty in the sample population was 16.1% and 25.4% when assessed using the FRAIL scale and the Frailty Index respectively. After adjusting for participant demographics, lifestyle and social factors, hearing loss was significantly associated with the prevalence of frailty when diagnosed by either measure (FRAIL scale: odds ratio [OR] 1.59, 95 CI% 1.32 to 1.91; Frailty Index: OR 1.76, 95 CI% 1.50 to 2.05). The proportion of men with hearing loss increased with increasing severity of frailty. **Conclusion:** Hearing loss is associated with increased prevalence of frailty in older men when assessed using either the FRAIL scale and the Frailty Index. Future longitudinal studies using objective measures of hearing will be helpful in determining if this association is likely to be causal.

## THE RELATIONSHIP BETWEEN ANXIETY AND CARDIOVASCULAR RISK IN HEALTHY AGEING WOMEN

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**Background:** Cardiovascular disease (CVD) is the leading cause of mortality globally, especially affecting ageing populations. Whilst depression, often co-morbid with anxiety, is a risk factor for CVD, the research literature suggests a conflicting relationship between anxiety and CVD. Post-menopause is when CVD rises exponentially and anxiety is a common feature, yet few studies explore this relationship. Understanding anxiety's role will allow preventative measures to be established, pivoting towards healthy ageing and away from CVD. **Objective:** This study aims to supplement the literature's understanding of anxiety and its effect on CVD, via cardiovascular risk scores (CVRS), in healthy ageing women. **Method:** Data was extracted from the Women's Healthy Ageing Program (WHAP) cohort, including baseline data from 494 women enrolled in 1992, and follow-ups in 2002 and 2012. Spearman's Rho correlation and gamma-regression analyses were conducted; exploring cross-sectional and longitudinal relationships between stress and CVRS, via the Hassles scale (predictor) and Framingham BMI CVRS (FRS-BMI; outcome) respectively. In 2012 and 2014, participants completed the Hospital Anxiety and Depression Scale – a more clinically relevant scale – to receive an anxiety score (HADS-A) that was examined against corresponding CVRS. **Results:** Cross-sectional and longitudinal analyses showed no association between Hassles measures and FRS-BMI at baseline or follow-up. As the WHAP consists of predominantly healthy women, only a small sample (n) scored within the moderate-severe HADS-A categories. Increased HADS-A scores within the moderate-severe category revealed a weak positive association with higher risks of CVD via FRS-BMI (2012: n=11, r=0.32; 2014: n=10, r=0.30), although non-significant. However, HADS-A was not predictive of CVRS two-years later. **Conclusion:** Participants' Hassles scores are not associated with CVRS on the day of interview nor one or two decades later. HADS-A was weakly associated with higher CVRS for individuals within the moderate-severe category, although anxiety scores were not predictive of future CVRS.

## LOWER LEVELS OF AIR POLLUTION EXPOSURE ARE NOT ASSOCIATED WITH INCIDENT DEMENTIA

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**Background:** There is a growing body of research linking moderate and higher levels of air pollution exposure to an increased risk of dementia. Yet, little is known about the impact of air pollution exposure at lower concentrations. **Objective:** To determine whether lower levels of air pollution exposure are associated with incident dementia. **Method:** A cohort of 10,826 men residing in Perth, Western Australia, which has some of the lowest air pollution levels in the world, was utilised. Participants were aged 65 years or older and had no known diagnosis of dementia at time of recruitment into the Health in Men Study between 1996 and 1999. Incident dementia was identified up to 2018 through ICD-9 and ICD-10 diagnosis codes from the Western Australian Data Linkage System. Air pollutants of nitrogen dioxide (NO<sub>2</sub>), fine particulate matter less than 2.5µm in diameter (PM<sub>2.5</sub>), and PM<sub>2.5</sub> absorbance, which is a marker for black carbon, were estimated at participants' home addresses. Cox proportional hazards regression models, with age as the analysis time, were used to analyse the relationship between time-varying air pollutants and incident dementia. Confounders considered in the models were smoking status, amount of physical activity, number of comorbidities, education level and the index of relative socio-economic disadvantage. **Results:** A total of 2,827 (26.1%) incident cases of dementia were identified. The average exposure to NO<sub>2</sub> was 13.5 (SD 4.1) µg/m<sup>3</sup>, to PM<sub>2.5</sub> was 5.13 (SD 1.6) µg/m<sup>3</sup> and to PM<sub>2.5</sub> absorbance was 0.97 (SD 0.26) x10<sup>-5</sup>m<sup>-1</sup>. None of the air pollutants were significantly associated with incident dementia, neither univariately nor after adjusting for potential confounders. **Conclusion:** The increased risk of dementia previously observed in moderate to higher levels of air pollution was not observed in this cohort with lower levels of air pollution exposure.

## AMBULANCE-ATTENDED ADULT FALLS PATIENTS IN WESTERN AUSTRALIA, 2019/20

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**Background:** Falls are a major reason for requesting an ambulance in Western Australia (WA). With a growing, and ageing, population, ambulance attendances for falls in WA have increased in recent years. However, the annual number of ambulance-attended falls in adults in WA has not previously been described. **Methods:** Computer-aided dispatch and electronic patient care records (ePCR) for adults attended by a St John WA ambulance between January 2019 through December 2020 were analysed. Patients who fell were identified by dispatch code and searching through ePCR examination text. **Results:** During 2019/20 (two years), 56,135 patients were attended by ambulances after falls (2019=26,666; 2020=29,469). Median age was 80 years [IQR 67-87], 90% of patients were >50 years of age, 71% >70 years and 31,653 (57%) were female. In 6,317 cases the patients were reportedly “not alert”. Ambulances were dispatched as priority one (lights and siren) in 11,316 (20%) cases; 27,522 (49%) as priority two, and 17,190 (30%) as priority three. Following assessment and treatment, paramedics assigned scene-to-hospital urgency: 781 (1%) patients were transported via urgency one; 8,450 (15%) patients via urgency two; 32,005 (57%) patients via urgency three; 8,405 (15%) patients via urgency four; 950 (2%) as urgency five; and 4,872 (9%) patients were not transported. **Conclusions:** Older adults comprise the highest proportion of ambulance attended falls in WA. One fifth of ambulances were dispatched as a priority one, while after treatment 1% patients were transported to hospital via the highest urgency, and one in eleven patients were not transported.

## **USING A COMPREHENSIVE GERIATRIC ASSESSMENT FOR OLDER ADULTS UNDERTAKING A FACILITY-BASED TRANSITION CARE PROGRAM TO EVALUATE HEALTH OUTCOMES: A FEASIBILITY STUDY**

**WONG Ying Git, HANG Jo-Aine, FRANCIS-COAD Jacqueline, HILL Anne-Marie**

Curtin School of Allied Health, Curtin University

Currently, transition care programs (TCP) only assess older adults' performance in their activities of daily living (ADLs) and there are no recommendations for TCP to include outcome measures that provide holistic assessments for older adults. Therefore, adopting a comprehensive geriatric assessment (CGA) may assist to provide a holistic picture of older adults' health status for TCP to provide a tailored rehabilitation for these older adults to have positive health outcomes. The aim of the study was to determine the feasibility of using a CGA in a transition care setting to evaluate changes in older adults' health-related outcomes. A convenience sample of older adults (n=10) admitted to transition care to undertake rehabilitation and staff (n=4) who worked at the facility was recruited. A range of tools that comprehensively measured function across physical, cognitive, social and emotional domains was evaluated pre and post participation in TCP. Participants (mean age = 78.9±9.1, n=6 male) completed a range of assessments including for mobility (de Morton Mobility Index; baseline 41.5, discharge 55.0, p=0.01), depressive symptoms (Patient Health Questionnaire-9; baseline 3.0, discharge 2.5, p=0.10), and quality of life (EQ-5D-5L health state score; baseline 59.0±21.7, discharge 78.0±16.0, p<0.01). The mean time taken to complete all outcome measures was 55.9±7.3 mins. Older adults reported that CGA assisted them to understand their present state of health. Overall, TCP staff also found CGA using the suggested outcome measures to be suitable and feasible in the TCP setting. Incorporating CGA to measure health outcomes in transition care using a range of assessment tools was feasible. This enables a holistic functional assessment that identified changes across physical, social and emotional domains. CGA may assist therapists in developing tailored rehabilitation for TCP.

## A SAFE MOBILISATION PROGRAM TO IMPROVE FUNCTIONAL MOBILITY AND REDUCE FALL RISKS IN COGNITIVELY IMPAIRED OLDER ADULTS WITH HIGHER-LEVEL GAIT DISORDERS: A PILOT STUDY

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**Background:** The association between gait and cognition, and their combined impact on postural stability may underlie the increased fall risks in older adults with cognitive impairment. However, there are few interventions to improve functional mobility and reduce fall risks in this population.

**Objective:** This study aims to investigate the feasibility and acceptability of a Safe Mobilisation Program for cognitively impaired older adults with gait disorders. It also explores the potential effectiveness of the program on functional mobility and fall risks. **Method:** Fifteen community-dwelling older adults with cognitive impairment and higher-level gait disorders participated in a pre-post intervention study. They were trained to take steady steps in transfers and mobilisation using specific teaching techniques. Participants started with basic transfers and mobility practice, then the training was generalised into real life activities. The intervention was 3 weeks in duration followed by 3-month follow up. Outcome measures included a questionnaire assessing program feasibility and acceptability, a falls calendar, and quantitative measures of functional mobility and fall risks. Both quantitative and qualitative data were analysed to obtain the trend of intervention outcomes and participants perception of the program.

**Results:** The intervention program was feasible, all the participants completed the program and were able to mobilise safely in daily activities. The program was acceptable and participants reported an increase in safety awareness, improvement in confidence while transferring and mobilising, and better quality of life. There was a trend of improvement in Falls Efficacy Scale-international (FES-I), Get Up & Go, 360 degree turn test, and Tinetti Performance Oriented Mobility Assessment (POMA), which may indicate improvement in functional mobility. **Conclusion:** The Safe Mobilisation Program was feasible and acceptable in older adults with cognitive impairment and gait disorders. It helped the participants to adopt safe behaviour in transfers and mobilisation which may impact on reduction of fall risks.



## **A NOVEL APP-BASED STUDY OF LIFE-COURSE VARIABILITY IN MULTIDIMENSIONAL SUBJECTIVE AGE, HEALTH AND COGNITION**

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Subjective age is typically assessed as a single item asking the respondent to report how old they feel. Despite only being a single question, it has been shown to be a strong predictor of many developmental outcomes including cognitive performance, subjective wellbeing, depressive symptoms, longevity, and dementia. Recently, there has been a push away from the single item approach towards a multidimensional understanding of subjective age (e.g., assessing how old you feel, look, think, or behave). However, there is little research on how the different dimensions of subjective age vary over shorter timescales (i.e., days) and mechanisms that may influence this variability within and across participants. Importantly, there is yet a study comparing this variability in a life-course sample, as many studies have focused on mid-to-late life. Additionally, research is unclear whether health and cognition predict subjective age. Therefore, this study will examine whether daily fluctuations in multidimensional subjective age are bi-directionally related to changing health and cognition across a life-course sample. This study will be administered through a smartphone application. In total, 140 participants aged between 18 and 85 years will be recruited to complete baseline demographic assessments, app-based cognitive assessments and two 7-day assessment bursts spread over 8 weeks. Within each assessment burst, participants will be asked to complete daily measures of subjective age, mood, and health (e.g., stress and fatigue). Participants will also wear an Apple smartwatch throughout the study to monitor physical activity and sleep. We will use mixed-linear modelling to assess the relationship between age, cognition, general health, and daily changes in multidimensional subjective age. We anticipate that this study will increase our understanding of the mechanisms that influence subjective age and will help identify factors to target for interventions aimed at improving self-perceptions of ageing and attitudes towards ageing overall.

# Zoom Map

Access to the conference is via a single Zoom link to the **'Main Room'**.

If you leave Zoom at any time during the conference and re-join, you will return to the **'Main Room'**.

Concurrent sessions throughout the day are held in **'Breakout Rooms'** – please select which Room number you wish to join using the Breakout Room function (use the same function to move between Rooms during the concurrent sessions).

Please refer to the **'Virtual Conference Instructions'** provided for further information.

Time (AEDT)	Session	ZOOM ROOM			
		MAIN ROOM	ROOM 1	ROOM 2	ROOM 3
10 - 10.15am	Opening Plenary	<b>Opening Plenary</b>			
10.15 - 11.15am	Concurrent Sessions (A) – Oral Presentations	<i>Access to Breakout Rooms &gt;</i>	<b>Predicting Health Outcomes</b>	<b>Determinants of Ageing</b>	<b>Contexts of Care</b>
11.15 - 11.30am	Break				
11.30 - 12.30pm	Concurrent Sessions (B) – Oral Presentations	<i>Access to Breakout Rooms &gt;</i>	<b>Cognitive Health</b>	<b>Clinical Care Practices</b>	<b>Care Transitions</b>
12.30 - 1.15pm	Break				
1.15 - 2.30pm	Concurrent Sessions (C) – Oral Presentations	<i>Access to Breakout Rooms &gt;</i>	<b>Physical Activity &amp; Falls Prevention</b>	<b>Dementia Care</b>	<b>Participation</b>
2.30 - 2.45pm	Break				
2.45 - 3.30pm	Concurrent Sessions (D) – Ask the Era Brains Trust Presentations	<i>Access to Breakout Rooms &gt;</i>	<b>Ageing Interventions</b>	<b>Markers of Ageing</b>	
3.30 - 3.45pm	Break				
3.45 - 4.15pm	The Research Journey Game	<b>The Research Journey Game</b>			
4.15 - 4.30pm	Closing Plenary	<b>Closing Plenary</b>			
4.30 - 5pm	Reception	<b>Reception</b>			

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