## **20th National Conference of Emerging Researchers in Ageing**

New Directions in Research on Ageing

10 November 2022 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

ERA 2022 contact: era2022@era.edu.au

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# Welcome from the ERA National Convenor



It is with great pleasure that I welcome you to the 20th National Conference of Emerging Researchers in Ageing. In recognition of the ongoing impact of the pandemic on emerging researchers, and following the success of our virtual conference last year, we felt that a virtual format would enable us to connect with more of you, which has proven to be the case—our conference programme is twice the size of last year!

As a virtual conference, we have worked with our conference Co-Chairs, Associate Professor Tim Windsor and Dr Helen Barrie, to maximise opportunities to participate throughout the day, as well as make the conference as engaging as possible. This includes:

- Utilising Zoom 'Breakout Rooms', so that presenters and the audience can interact with each other (rather than being restricted to simply viewing presentations and communicating by chat text); I encourage all delegates to please turn their cameras on where possible throughout the day to create a visible live audience
- Foregoing the usual morning and afternoon keynote lectures in favour of more interactive sessions, with gaps after sessions for people to continue to talk (Breakout Rooms will remain open during all breaks)
- · Including interactive "Ask the ERA Brains Trust" sessions, where participants pose questions to relevant experts and the ERA community

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 support of all our activities. I would also like to thank the Australian Association of Gerontology and the National Ageing Research Institute (NARI), for their support. I would particularly like to thank our conference Co-Chairs Tim and Helen who have worked hard to make this the best possible virtual conference.

Finally, I would like to acknowledge our amazing conference coordinator, Courtney Hempton, who was the driving force behind ERA and who sadly passed away just prior to this conference. Courtney will be missed by the entire ERA family.

I look forward to 'seeing' you all at the conference.

Matthew Carroll

Dr Matthew Carroll ERA National Convenor



# **Co-Chairs**



#### Associate Professor Tim Windsor Flinders University

Tim Windsor is Director of the Generations Research Initiative, within the College of Education, Psychology and Social Work at Flinders University. His research interests focus on social engagement and the psychosocial resources that people use to maximise their developmental potential, overcome challenges, and effectively negotiate transitions, particularly in later life. Dr Windsor was awarded an ARC Future Fellowship to study developmental changes in social relationships, and their implications for mental health and cognition. He has co-authored more than 75 peer reviewed journal articles and book chapters, with the majority concerned with social networks and wellbeing in older adulthood.



#### Dr Helen Barrie University of South Australia

Dr Helen Barrie is a Senior Research Fellow and Director of The Australian Alliance of Social Enterprise (TAASE) at the University of South Australia. As a social gerontologist and geographer, Helen's research has a focus on Australia's changing population and the implications of this for society and communities. Much of this work involves an examination of the interaction between people and the built environment; community connectedness and social networks; all with a particular focus on ageing populations. She is proud to have been an Australian Association of Gerontology member for 16 years; a past state and national president and now a life member.

## Ambassadors

Professor Kaarin Anstey, The University of New South Wales **Professor Marian Baird AO**, The University of Sydney Professor Elizabeth Beattie, Queensland University of Technology **Professor Henry Brodaty AO**, The University of New South Wales Dr Richard Burns, The Australian National University Dr Elissa Burton, Curtin University Professor Laurie Buys, Australian Catholic University Professor Julie Byles AO, The University of Newcastle **Professor Nicolas Cherbuin**, The Australian National University **Professor Briony Dow**, National Ageing Research Institute Professor Anne-Marie Hill, The University of Western Australia Professor Keith Hill, Monash University Professor Ruth Hubbard, The University of Queensland Associate Professor Hannah Keage, University of South Australia **Professor Lee-Fay Low**, The University of Sydney

Professor Judy Lowthian, Bolton Clarke Research Institute Professor Evonne Miller, Queensland University of Technology Associate Professor Kirsten Moore, National Ageing Research Institute Professor Wendy Moyle, Griffith University Dr Chiara Naseri, The University of Western Australia Associate Professor Lynne Parkinson, The University of Newcastle Professor Matthew Parsons, The University of Waikato Associate Professor Joanne Ryan, Monash University Professor Stephen Simpson, The University of Sydney Dr Ashleigh Smith, University of South Australia Professor Christine Stephens, Massey University Professor Yvonne Wells, La Trobe University Dr Rachel Winterton, La Trobe University

# Acknowledgements

### **Conference Organising Committee**

Associate Professor Tim Windsor (co-Chair), Flinders University
Dr Helen Barrie (co-Chair), University of South Australia
Dr Matthew Carroll, Emerging Researchers in Ageing
Courtney Hempton, Emerging Researchers in Ageing

### 'ERA Brains Trust'

Professor Julie Byles, The University of Newcastle
Professor Yun-Hee Jeon, The University of Sydney
Dr Kim Kiely, The University of New South Wales
Professor Judy Lowthian, Bolton Clarke Research Institute
Dr Sean MacDermott, Latrobe University
Dr Claudia Meyer, Bolton Clarke Research Institute
Professor Evonne Miller, Queensland University of Technology
Dr Katrina Radford, Griffith University
Dr Craig Sinclair, The University of New South Wales
Dr Leigh Wilson, The University of Sydney

### Session Chairs and Other supporters

Dr Richard Burns, Australian National University Mr Tim Campbell, Monash University Dr Victoria Cornell, University of Adelaide Ms Natali Cvetanovska, Monash University Mr Lui Di Venuto, City of Onkaparinga Ms Annabel Grant, Massey University Professor Keith Hill, Monash University Professor Anne-Marie Hill, University of Western Australia Associate Professor Hannah Keage, University of South Australia Ms Shanika Koreshi, Massey University Professor Judy Lowthian, Bolton Clarke Ms Maddison Mellow, University of South Australia Dr Kirsten Moore, National Ageing Research Institute Dr Chiara Naseri, University of Western Australia Dr Katya Numbers, University of NSW Mr David Poland, Monash University Dr Suraj Samtani, University of NSW Dr Julia Turner Scott, Flinders University Professor Yvonne Wells, Latrobe University

# **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











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## Prizes

#### **Best ERA 2022 Oral Presentation**

Sponsored by the National Ageing Research Institute

Presenting an oral paper at a virtual 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 2022 Oral Presentation by a member of the Australian Association of Gerontology

Sponsored by the Australian Association of Gerontology

Presenting an oral paper at a virtual research conference requires the ability to present a complicated research program in a clear, visually appealing, and engaging manner. The Association of Gerontology Student or Early Career member 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 10 November 2022

Australian Central Daylight Time (ACDT) – please check your local time on the Time Zone Conversion Chart at the end of the proceedings. The zoom link will be active from 9.30am for anybody wanting to join early to test their connection or ask guestions.

OPENING PLENARY	
10am – 10.15am	ACKNOWLEDGEMENT OF COUNTRY
	OPENING ADDRESS
	Associate Professor Tim Windsor, ERA 2022 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 separate 'Virtual Conference Instructions' document provided for further information.

### Presentation titles are hyperlinked to the corresponding abstract for your reference

### CONCURRENT SESSIONS (A): ORAL PRESENTATIONS

#### 10.15am – 11.15am

Mechanisms of Ageing	<b>Cognitive Health Screening</b>	<b>Clinical Interventions</b>	The Aged Care Workforce	Ageing and Place
ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5
Chair: Richard Burns	Chair: Katya Numbers	Chair: Chiara Naseri	Chair: Hannah Keage	Chair: Victoria Cornell
Dissecting the Molecular Processes Required to Sustain Healthy Lifespan <b>Joshua Johnstone</b> (he/him)	Investigating the Association of Upper Limb Motor Function with Cognitive Impairment <b>Kaylee Rudd</b>	Exploration of an On-site Pharmacist Intervention in Australian Residential Aged Care Facilities Using Normalisation Process Theory: A Mixed Methods Study <b>Miranda Batten</b>	Understanding Stigma in the Context of Working in Aged Care <b>Asmita Manchha</b>	Urban Heatwaves, Age and Gendered Injustice – What's Social Work Got to Do With It? Margareta Windisch (she/her)
Metabolic Connectivity as a Biomarker of Age-associated Neurodegeneration and Cognitive-decline <b>Robert (Rob) Di Paolo</b> (he/him)	Rapid-Motion-Track: Markerless Tracking of Fast Human Motion with Deep Learning <b>Renjie Li</b>	Impact of a Multi-faceted, Pharmacist-led Intervention on Psychotropic Medication Use for Residents of Aged Care Facilities: A Parallel Cluster Randomised Controlled Trial <b>Hend Almutairi</b>	A Review of Nursing Career Frameworks to Develop an Age Care Specific Career Framework <b>Sachini Thennakoon</b>	Perceived Neighbourhood Safety and Physical Activity <b>Sabrina Lenzen</b>
High Polygenic Risk Score for Exceptional Longevity is Associated with a Healthy Metabolic Profile <b>Mary Revelas</b> (she/her)	Correlation Exists Between Hand Movement Function and Cognitive Function <b>Renjie Li</b>	"How Much do you Want to Improve After Treatment?" A Qualitative Study Using Nominal Group Technique to Determine the 'Minimal Clinically Important Change' of Knee Flexion in People with Knee Osteoarthritis <b>Denika Silva</b> (she/her)	Internationally Qualified Nurses Transitioning to, and Working in the Aged Care Sector of Australia <b>Louise Sheehy</b> (she/her)	We Know we Don't Want to Leave, But What do we Really Know About Ageing in Place? <b>Katie Rose</b>
		Quantitative Analysis of Efficacy and Associated Factors of Platelet Rich Plasma Treatment for Osteoarthritis <b>Ying Cao</b>	How do Aged Care Staff Apply Trauma-informed Care in Daily Practice? A Case Study Lenore de la Perrelle (she/her)	Cultural Encounters for Wellbeing in the Third Age Lena Gan

BREAK

11.15am - 11.30am

### CONCURRENT SESSIONS (B): ORAL PRESENTATIONS

11.30am – 12.30pm

Determinants of Brain Health	Cognitive Assessment	<b>Clinical Care Practices</b>	Education and Training	Care in the Community
ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5
Chair: Suraj Samtani	Chair: Katya Numbers	Chair: Anne-Marie Hill	Chair: Tim Windsor	Chair: Lui Di Venuto
Factors Associated with Brain Ageing in Later Life Jo Wrigglesworth	TAS Test-BRAIN Online Keyboard Tapping Task Associates with Cognitive Performance in Community and Clinical Cohorts of Older Adults <b>Xinyi Wang</b>	Implementation Challenges and Impacts of the Comprehensive Care Standard in Australian Acute Care Hospitals: Protocol for a Mixed-Method Study <b>Beibei Xiong</b>	Navigating Away from Moral Distress: The Case for Preparing the Aged Care Workforce for Moral Navigation Lachlan (Lachie) Green (he/him)	A Grounded Theory Study of the Experiences of Older People and Their Carers' Receiving Home Care Package Services Kathleen McCauley
Quantifying the Effect of Blood Pressure Levels on Brain Health from Midlife and into Old Age <b>Khawlah Alateeq</b>	Real-time Automated Detection of Older Adults' Hand Gestures in Home and Clinical Settings <b>Guan Huang</b>	An Exploration of the Efficacy of Geriatric Evaluation and Management (GEM) Units Farnaz Khoshmanesh	Vulnerable Ageing: Dementia Knowledge and Risk Reduction in Homelessness <b>Clare Beard</b>	Aged and Health Care Service Utilisation by Older Australians Receiving Home Care Packages Kailash Thapaliya
Gender Differences in the Association between Cognitive Reserve and Mild Cognitive Impairment <b>Yvonne Leung</b>	Development of the Online Dementia Risk Assessment Tool-CogDrisk <b>Scherazad Kootar</b> (she/her)	Radiographers' Experiences of Older Population Diagnostic Medical Imaging Service Encounters: A Person-centred Approach <b>Kevin Ding</b>	Experiences of Allied Health Students Working with Older Adults on University Placement in Residential Aged Care Facilities: An Integrative Review <b>Karly Bartrim</b>	Association of Perceived Social Isolation and Reported Barriers to Access Formal Aged Care: Findings from a National Survey <b>Yuchen (Joyce) Xie</b>
Vitamin D and Cognitive Performance in Community- dwelling Adults: A Systematic Review and Dose-response Meta- analysis of Observational Studies Janis (Jan) Harse	Giving a Voice to Culturally and Linguistically Diverse Older Adults: Community Consultation about the Design and Implementation of an Online Survey in the CogSCAN Study <b>Zara Page</b> (she/her)	Exploring the Role of Nursing in Multicomponent Intervention Delivery for Delirium for Older People in Hospital Annie Hepworth	Physiotherapy Students are Underprepared to Work with People Living with Dementia: A Qualitative Study <b>Stephen Quick</b>	Self-Care Behaviours and Related Cultural Factors Among Elder Chinese Immigrants Living with Cardiovascular Disease in Western Countries: An Integrative Review Ling (Cristina) Zeng

LUNCH BREAK

12.30pm – 1.15pm

### CONCURRENT SESSIONS (C): ORAL PRESENTATIONS

1.15pm – 2.15pm

Predicting Health Outcomes	Dementia Care	Nutrition and Oral Health	Advances in Aged Care	Engagement and Participation
ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5
Chair: Helen Barrie	Chair: Kirsten Moore	Chair: Keith Hill	Chair: Judy Lowthian	Chair: Shanika Koreshi
The Association Between Transport-related Walking and Disability Free Survival in Older Adults: A Cohort Study <b>Shivangi Shah</b>	'Brainwork Practices': Responsibilisation of Dementia Prevention in Australian Aged Care Discourse <b>Kristina Chelberg</b> (she/her)	The Association Between Dairy Intake and Disability Free Survival in Community Dwelling Older Adults: The Results of the ASPREE Longitudinal Study of Older Persons (ALSOP) Holly Wild (she/her)	The Role of Aged Care Assessors in Rationing Aged Care Resources as Street Level Bureaucrats <b>Karen Donner</b> (she/her)	Advancing the Conceptualisation of Workability to Address the Ageing Workforce <b>Carolin Bontrup</b>
Prevalence and Risk Factors for Falls and Fall-related Injuries in the National Post-acute and Long- term Care Study <b>Zhaoli (Joy) Dai-Keller</b>	What can Aged Care Workers Tell us About Quality Communication with People with Dementia? <b>Chelsea Allen</b> (she/her)	Dietary Inflammatory Index and Associations with Sarcopenic Symptomology in Community- dwelling Older Adults <b>Corey Linton</b>	Person-Centredness and Leadership in Residential Aged Care <b>Sean Mack</b>	Characteristics of Volunteer Work and their Implications for Wellbeing ir Older Adults <b>Amy Harvey</b> (she/her)
Age and Rumination Moderate the Longitudinal Associations of Awareness of Age-related Change with Depressive and Anxiety Symptoms <b>Serena Sabatini</b> (she/her)	The Effectiveness and Characteristics of Communication Partner Training Programs for Families of People with Dementia: A Systematic Review <b>Naomi Folder</b> (she/her)	The Association of Edentulism and Self-reported Oral Health with All- cause Mortality in Older Adults: The Results of the ASPREE Longitudinal Study of Older Persons Yang Chen	Improving End of Life Care for Residents of Residential Aged Care Facilities <b>Mia Taylen-Smith</b>	Radio Listening, Identity and Company <b>Amber Hammill</b> (she/her)
The Impact of Hearing Loss on Mental Health and Loneliness in Tonal Language-Speaking Older Adults in China <b>Xinxing Fu</b>	Identifying Evidence-based Dementia Knowledge for the Australian Aged Care Workforce and the Public: Gaps and Future Opportunities Lenore de la Perrelle (she/her) & Bethany Wilton-Harding (she/her)	Development of Interprofessional Collaboration and Oral Care Protocol to Improve Nursing Oral Care Practice for Care-dependent Older Adults in the Community <b>Keiko Oda</b>	Creating Safety, Power and Self- worth: Developing and Prototype Testing a Trauma-informed Approach to Story Work in Aged Care <b>Georgina Johnstone</b>	Interest as a Driver for Older Adults to Learn and to Maintain Use of Mobile Touch Screen Technologies Jeanie Beh

BREAK

2.15pm – 2.30pm

### CONCURRENT SESSIONS (D): ORAL PRESENTATIONS

2.30pm – 3.30pm

Understanding Healthy Ageing	Experiences of Ageing	Physical Activity	Turning Barriers into Opportunities	Technology and Care
ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5
Chair: Yvonne Wells	Chair: Kirsten Moore	Chair: Keith Hill	Chair: Lui Di Venuto	Chair: Chiara Naseri
How can existing longitudinal studies Contribute to research on ageing and inform policy <b>Ayesha Alhassan</b>	Subjective Cognitive Decline, Psychological Resources, and Wellbeing in Older Adults <b>Erin Westphalen</b>	The Acute Effect of Exercise Intensity and Mode on Circulating Irisin Concentrations James Newman	How Can We Improve High Quality Advance Personal Planning for Older People? Perspectives of Key Informants Can Pave the New Direction <b>Briony Johnston</b> (she/her)	Everyday Care with Digital, Networked Technologies: Complex, Contradictory, and Compromised <b>Lisa Vonk</b> (she/her)
Decline or Successful Ageing Discourses: When Local Knowledge and Dominant Discourses Intersect to Shape Personal Stories of Ageing <b>Made Diah Lestari</b>	Exploring Dementia Diagnosis Experiences in Regional and Rural Australia: A Qualitative Study Hannah Gulline	Can we Teach an Old Dog New Tricks? Assessing the Feasibility of Concurrent Physical and Cognitive Training <b>Vicki McCarthy</b>	Barriers to Effective Service Responses to the Abuse of Older People: Evidence from Western Australia <b>Catriona Stevens</b> (she/her)	Validation of the Partial Automation Acceptance Scale (PAAS) in Older Drivers <b>Abigail Hansen</b>
Co-creating Social Engagement Technologies with Older Australians <b>Jacob Sheahan</b>	"Incontinence Presented Most Problems with Sleep": Experiences of Sleep Disturbance Associated with Incontinence in Dementia- related Care Jaime Fearn	Effectiveness of Community Based Rehabilitation (CBR) Centres for Improving Physical Fitness for Community-dwelling Older Adults: A Systematic Review and Meta- analysis <b>Wei Xin</b>	Ageing Actively, Ageing Inclusively: Barriers and Facilitators to Minority Older Adults' Participation in Active Ageing Centres <b>Nathan Widjaja</b>	Efficacy and Neural Mechanisms of Computerised Cognitive Training in Huntington's Disease: Protocol for Randomised Controlled Trial <b>Katharine Huynh</b>
Understanding Leisure in Residential Aged Care <b>Sharon Stoddart</b> (she/her)	Exploring the Self-care Behaviours Among Elder Chinese Australians Living with Cardiovascular Disease: A Qualitative Enquiry Ling (Cristina) Zeng	A Group-Based Seniors Exercise Park Program for Older Adults with Mild Balance Dysfunction <b>Yoke Leng (Michelle) Ng</b>		

BREAK

3.30pm – 3.45pm

#### Titles are hyperlinked to the corresponding research overview for your reference

#### CONCURRENT SESSIONS (E): ASK THE ERA BRAINS TRUST

3.45pm – 4.45pm The Ask the ERA Brains Trust format provides participants with the opportunity to ask questions and receive research advice from members of the 'ERA Brains Trust' (relevant experts); each participant will begin with a 5-minute presentation (providing a brief overview of their research and outlining their questions), followed by responses from the ERA Brains Trust, with the final part of each session allocated to audience Q&A.

Aged Care Research Challenges	Designing Research for the Future	Informing Policy and Practice ROOM 3	
ROOM 1	ROOM 2		
Chair: Tim Windsor	Chair: Helen Barrie	Chair: Matthew Carroll	
ERA Brains Trust:	ERA Brains Trust:	ERA Brains Trust:	
<ul> <li>Professor Judy Lowthian, Bolton Clarke Research Institute</li> <li>Dr Claudia Meyer, Bolton Clarke Research Institute</li> <li>Dr Craig Sinclair, The University of New South Wales</li> </ul>	<ul> <li>Dr Katrina Radford, Griffith University</li> <li>Dr Sean MacDermott, Latrobe University</li> <li>Professor Evonne Miller, Queensland University of Technology</li> <li>Dr Leigh Wilson, The University of Sydney</li> </ul>	<ul> <li>Professor Julie Byles, The University of Newcastle</li> <li>Professor Yun-Hee Jeon, The University of Sydney</li> <li>Dr Kim Kiely, The University of New South Wales</li> </ul>	
Life in Residential Aged Care: What Does it Mean? Jarrah FitzGerald	'We NEED You' – Enhancing Engagement of Older People with Climate Actions	Developing an Innovative Workability Instrument for the Ageing Workforce	
	Susanne Jones	Carolin Bontrup	
Implementation Challenges and Impacts of the Comprehensive Care Standard in Australian Acute Care Hospitals: Protocol for a Mixed-Method Study Beibei Xiong	Creating Meaningful Encounters: The Application of Co-design to Intergenerational Programme Angela Zhang (she/her)	Meaningful Relationships for People Experiencing Dementia-associated Behaviours in Residential Aged Care Janet Mitchell	

CLOSING PLENARY	
4.45pm – 5pm	<ul> <li>AWARD OF PRIZES</li> <li>Best ERA 2022 Oral Presentation</li> <li>Best ERA 2022 Oral Presentation by a member of the Australian Association of Gerontology</li> <li>Helen Bartlett Prize for Innovation in Ageing Research</li> </ul> Dr Matthew Carroll, ERA National Convenor
	CONFERENCE CLOSE Dr Helen Barrie, ERA 2022 Co-Chair

# Abstracts (Oral Presentations)

In alphabetical order (by presenting author surname)

#### Quantifying the Effect of Blood Pressure Levels on Brain Health from Midlife and into Old Age

#### ALATEEQ Khawlah<sup>1,2</sup>, WALSH Erin<sup>1</sup>, ABHAYARATNA Walter<sup>3</sup>, CHERBUIN Nicolas<sup>1</sup>

<sup>1</sup> Centre for Research on Ageing, Health and Wellbeing, Australian National University

- <sup>2</sup> Radiological Sciences, King Saud University (Saudi Arabia)
- <sup>3</sup> School of Medicine and Psychology, Australian National University

**Background:** Increased blood pressure (BP) is a significant risk factor for brain ageing. Evidence has linked hypertension to cerebrovascular disease and dementia. However, the threshold at which increasing BP starts impairing brain structure and function has not been determined. **Objective:** To quantify the association between BP levels with brain volumes and white matter lesions (WMLs) while investigating the effects of age, sex, body mass index (BMI), and antihypertensive medication. **Methods:** UK Biobank participants (n=36,260) aged 40–70 years were included and stratified by sex and four age groups (age ≤45, 46–55, 56–65 and >65 years). Multi-level regression analyses were used to assess the association between the components of BP (mean arterial pressure (MAP), systolic BP (SBP), diastolic BP (DBP)), and brain volumes segmented using the FreeSufer software (gray matter volume [GMV], white matter volume [WMV], left [LHCV] and right hippocampal volume [RHCV]) and WMLs). Interaction effects between body mass index (BMI), antihypertensive medication and BP in predicting brain volumes and WMLs were also investigated. **Results:** Every 10 mmHg higher DBP was associated with lower brain volumes (GMV: -0.19% to -0.40% [SE = 47.7–62.4]; WMV: -0.20 to -0.23% [SE = 34.66–53.03]; LHCV: -0.40 to -0.59% [SE = 0.44–0.57]; RHCV: -0.17 to -0.57% [SE = 0.32–0.95]) across all age groups. A similar pattern was detected in both sexes, although it was weaker in men. Every 10 mmHg higher MAP was associated with larger WMLs at all ages but peaked in the >65 years group (1.19–1.23% [SE = 0.002]). Both lower BMI and anti-hypertensive medication appeared to afford a protective effect. **Conclusion:** Higher BP is associated with worse cerebral health across the full BP range from middle adulthood and into old age. It supports clinical guidelines recommending increased prevention to maintain optimal BP from a younger age.

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#### How Can Existing Longitudinal Studies Contribute to Research on Ageing and Inform Policy

#### ALHASSAN Ayesha<sup>1</sup>, MATTHEW Kelly<sup>1</sup>, SARGENT Ginny<sup>1</sup>, SKEAT Helen<sup>1,2</sup>

<sup>1</sup> National Centre for Epidemiology and Population Health, Australian National University

<sup>2</sup> Preventive and Population Health Branch, ACT Health

It is estimated that 1 in 5 people will be aged 60 and over by the year 2050. Hence, effective policies and legislation are essential to cater for this growing population and support healthy ageing. This project explores existing data sets and how they can be used to inform policy. We focus on the value of longitudinal studies and explore how different longitudinal data sets can be used by policymakers to inform decisions regarding healthy ageing policy. We use the Australian Capital Territory (ACT) as a case study, identifying longitudinal studies which might be useful to inform population health policies for healthy ageing. A scoping review was conducted and identified 10 existing studies that have a longitudinal design, sample the ACT population, and include participants aged 45 and over. The coverage of each data source was summarised, and variables were categorised into seven broad domains relevant to healthy ageing policy: (i) mental health; (ii) economic wellbeing, growth, income, and management of the labour force; (iii) physical health assessment and capacity; (iv) health insurance, health service use and accessibility; (v) demographics, family organisation, sexual and reproductive health; (vi) social participation, behavioural risk, life challenges and attitudes; and (vii) housing and transportation. Healthy ageing can be conceptualised across the life course and policy responses will be supported by longitudinal studies that observe associations and infer causality between risk/protective factors encountered throughout the life course and healthy ageing outcomes. We provide a summary of relevant longitudinal studies, and some examples of how these data can be used as an evidence-base to inform healthy ageing policy.

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#### What can Aged Care Workers Tell us About Quality Communication with People with Dementia?

#### ALLEN Chelsea, FLANAGAN Kieran, CONWAY Erin

School of Allied Health, Australian Catholic University

Background: Quality communication facilitates the efficient, respectful, and mutually satisfactory completion of care tasks and fulfillment of social-emotional needs for aged care consumers. However, over half of all residents in Australian aged care facilities living with dementia experience communication impairments. For many people with dementia in aged care, social interaction is primarily provided by care staff and the guality of these interactions have implications for guality of life and social engagement. **Objective:** This study aims to identify the key barriers and facilitators to quality communication between aged care workers and people with dementia in their care, in order to inform relevant and practical communication partner training for aged care staff to facilitate better communication outcomes in aged care. Method: An exploratory cross-sectional online survey was distributed via social media to aged care workers. Two hundred and seventy-five participants attempted the survey, with 140 submitting their responses for data analysis. **Results:** The majority of participants in this survey identified as direct care workers (61%), women (98%), and primarily worked in residential aged care settings. The majority of participants indicated a desire to communicate with people with dementia during care and were interested in seeking support to improve their communication skills. However, the responses suggest that workplace factors such as limited time, high consumer-to-staff ratios and a high volume of tasks to be completed were frequently reported barriers to participants' providing quality communication. The majority of participants indicated that they would like to receive more training around effective communication from experts (for example, speech pathologists). Conclusion: Aged care workers have identified the importance of communication with people with dementia when providing care but express a desire for more support. Limitations due to environmental factors are barriers to achieving high quality communication with aged care consumers with dementia.

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## Impact of a Multi-faceted, Pharmacist-led Intervention on Psychotropic Medication Use for Residents of Aged Care Facilities: A Parallel Cluster Randomised Controlled Trial

#### ALMUTAIRI Hend<sup>1</sup>, STAFFORD Andrew<sup>2</sup>, ETHERTON-BEER Christopher<sup>1,3,4</sup>, FITZGERALD Patrick<sup>4</sup>, FLICKER Leon<sup>1,3,4</sup>

- <sup>1</sup> Medical School, University of Western Australia
- <sup>2</sup> Curtin Medical School, Curtin University
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Background: Behavioural and psychological symptoms of dementia (BPSD) are common among people with dementia (PWD). Despite limited evidence of efficacy and serious side effects, psychotropic medications are frequently prescribed to manage BPSD. Objectives: This study investigated the effect of a multifaceted intervention on reduction in psychotropic medication use, falls, agitation, emergency department (ED) visits and hospitalisation in residential aged care facilities (RACFs). Method: This study was an open, parallel cluster randomised controlled trial (n=11 RACFs with 439 residents) that compared a RACF-staff directed intervention (Medication Management Consultancy (MMC)) to control (usual care). RACFs were randomised to intervention group (n=5), and control group (n=6). The MMC comprised education, medication audits and resources on psychotropics, person-centred care and non-pharmacological strategies. The primary outcome was change in total equivalent doses (mg/month) of antipsychotic, antidepressant and benzodiazepines medication use over 12 months. Secondary outcomes were falls, restraints, agitation, emergency visits, hospitalisation and knowledge of psychotropic medications among RACF staff over a12-month period. Data were collected at T0 (baseline), T1 (6 months) and T2 (12 months). Results: Compared to the control group, there was a 44% reduction in use of antipsychotics in the intervention group at T1 (IRR 0.56; 95% CI 0.32-0.99, p=0.048) with a non-significant reduction at T2 (IRR0.79; 95% CI0.44-1.40, p=0.414). There was no reduction in antidepressant use at either T1 or T2. Benzodiazepine use did not differ from the control at either T1 or T2. The intervention reduced the number of emergency visits at T1(IRR 0.15; 95% CI 0.06-0.35;p < 0.0005) and T2(IRR 0.04; 95% CI 0.01-0.13;p< 0.0005). Staff knowledge about psychotropic medications improved significantly from T0-T1 and from T0-T2. Conclusions: Compared to usual care, the intervention reduced the use of antipsychotics, emergency department visits and increased staff knowledge in RACFs, with limited benefits in other clinical outcomes.

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#### Experiences of Allied Health Students Working with Older Adults on University Placement in Residential Aged Care Facilities: An Integrative Review

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**Background:** Older adults living in residential aged care facilitates (RACFs) have complex care needs that require support from allied health (AH) professionals. It is therefore important that AH students have positive experiences during university placement to encourage these future AH professionals working in RACFs. **Objective:** To explore AH students' experiences of working with older adults on RACF placements. **Method:** A systematic literature search was conducted to identify studies of AH students' experiences of RACF placements. Studies were assessed for quality using Mixed Methods Appraisal Tool (MMAT). Extracted studies were analysed to identify the study design, participant and university placement characteristics, study methodology and AH students experience of the placement. **Results:** Six of forty-five studies published between 1997 to 2018 met inclusion criteria. Studies included undergraduate and masters students from physical therapy (n=3), speech language pathology (n=1), dietetics (n=1), and speech language pathology and audiology (n=1). Placement length varied from two to 15 hours, over one to multiple visits across a semester and between one to six RACF visits. AH students had diverse roles engaging with older adults, from discipline-specific tasks to companionship or mealtime helpers. Student experience was measured pre-post placement through surveys/questionnaires (n=5), individual interviews (n=2), focus groups (n=1) and journal entries/blog posts (n=2). Analysis of studies showed that students had an increased positive attitude to older adults after placement. They valued the practical opportunity to learn outside of the university setting. Higher knowledge, empathy, and confidence skills post-placement and reduction of stereotypes of older adults were described. **Conclusion**: While the size of the evidence-base is limited, the studies were consistent in demonstrating that AH students had positive attitudinal benefits following their RACF placements. Future research should focus on wheth

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## Exploration of an On-site Pharmacist Intervention in Australian Residential Aged Care Facilities Using Normalisation Process Theory: A Mixed Methods Study

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**Background:** Residents living in residential aged care facilities (RACFs) continue to experience medication-related harm. There is ongoing interest in expanding the role of pharmacists, including on-site pharmacists, to help improve medication management in RACFs. **Objective:** The objectives of this mixed methods study were to explore the extent and ways in which on-site pharmacists (OSPs) were normalised within RACFs as part of a complex pharmacist intervention which sought to improve medication management. **Method:** This study consisted of semi-structured interviews informed by Normalisation Process Theory (NPT) and a quantitative survey adapted from the NoMAD instrument which is underpinned by NPT. **Results:** The interviews with prescribers (n=9), managers (n=7), nursing staff (n=10), OSPs (n=7), residents and family members (n=14) indicated that the presence of OSPs within their respective RACFs made sense, with most participants invested and involved in supporting OSPs to become part of routine practice—i.e., 'normalised'. Prescribers, managers and nursing staff (health care team members) were also invited to complete an adapted survey. Health care team members survey responses (n=16) strongly reinforced the positive qualitative findings. Overall, OSPs were positively appraised by health care team members as well as residents and family members and were generally considered to be normalised within their respective RACFs. **Conclusion:** This study explored OSP normalisation within RACFs. From the perspective of residents, family members and health care team members OSPs within Australian RACFs could be normalised. The findings also highlighted the value of using theory to guide evaluation of a pharmacist intervention in RACFs and the utility of applying NPT in a new setting, Australian RACFs. Importantly, the findings of this study could help inform the future role of OSPs working within Australian RACFs.

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#### Vulnerable Ageing: Dementia Knowledge and Risk Reduction in Homelessness

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Homelessness services provide direct support to an increasingly aged and cognitively vulnerable community. This paper discusses dementia knowledge in the homelessness workforce and considers a dementia risk reduction approach to service delivery. Background: People experiencing homelessness are an ageing community, with increasing numbers of older women connecting to homelessness services. In addition to advancing age, homelessness accelerates ageing due to the cumulative effects of enduring poverty, stress, failing health and continued marginalisation, and exposes people to a range of risk factors for developing dementia. **Objective**: To understand baseline dementia knowledge from a sample of the homelessness workforce and identify dementia knowledge gaps when supporting older people experiencing homelessness. Methods: An explanatory sequential mixed methods design was employed. First, a 25-question, four-factor dementia knowledge survey was circulated to specialist homelessness services in South Australia to ascertain baseline dementia knowledge. Second, in-depth interviews were conducted with key stakeholders, using thematic analysis to identify opportunities to increase dementia knowledge and dementia risk reduction in homelessness services. Results: Qualitative analysis identified a whole-sample mean score of 24.8 (SD:10.1) (n=95) from a maximum possible score of 50. Health and allied health roles performed best across all dementia knowledge domains, with a group mean of 29.67 (n=27), compared to social work roles at 25.69 (n=39) and volunteer/other roles at 20.59 (n=29). Qualitative interviews revealed both barriers and facilitators in supporting clients' cognitive health, with suggestions for dementia awareness, professional development, and implementation of dementia risk reduction activities. **Conclusions**: Given their de-facto carer role in an increasingly aged community, an ostensibly low dementia knowledge score has implications for homelessness services. The results identify a valuable opportunity to improve dementia knowledge across all occupational roles within the homelessness workforce, tailor services to meet the needs of older clients, and enhance dementia risk reduction strategies.

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#### Interest as a Driver for Older Adults to Learn and to Maintain Use of Mobile Touch Screen Technologies

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This research project is seeking to create awareness of older adults' needs in learning of new technology. **Background:** Not being able to use technology is isolating and makes it difficult for older adults to conduct their everyday lives and the COVID pandemic has further exacerbated this situation. Hence, it is imperative for older adults to participate in technology use. This study draws on existing interest literature related to pedagogical approaches and seeks to apply and extend this to older adult learning (geragogy). Presently, there is very little research conducted in relation to older adults' interests and the influence of interests on their uptake of mobile touch screen technology. The Interest-Bridge Model developed in this study uses the pre-existing interests of older adults to move their interest in technology from being situational (relatively temporary) to individual (relatively permanent). **Objective:** This research reports on the findings of participatory action research with 60 independently living older adults aged 60 years and older. The aim of the workshops was broadly to investigate ways in which older adults' interest in technology use could be developed and maintained, and specifically to test the Interest-Bridge Model. **Methods:** Workshop participants were taught according to requests based on their stated interest preferences (e.g., reading, travelling) and technology usage. A mixed methods methodology collected data from focus group interviews, observations, and questionnaires. **Results:** Findings indicate that the flexible curriculum guided by the interests of older adults learning of technology. The focus on their interests has encouraged long-term adoption of technology through regular use. In addition, participants reported that learning in a peer-supported environment built up their confidence discussing barriers to technology use.

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#### Advancing the Conceptualisation of Workability to Address the Ageing Workforce

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**Background:** While our working life undergoes substantial transformation given the unceasing technological advancements within today's workplaces, the workforce population is changing due to a growing proportion of mature workers. The workability concept, which represents the balance between various resources and the demands of the job, provides a foundation to better understand how and where to support mature individuals to successfully cope with their work requirements. It has been suggested that existing workability concepts do not adequately represent the ageing workforce. Thus, there is a need to advance current models and frameworks of workability tailored to the older workforce. **Objective:** To identify factors that have the potential to either hinder or help mature workers to manage their daily work duties in order to develop a framework of workability that reflects the needs of mature workers. **Method:** A cross-sectional survey was administered to individuals (45y+; working/retired) during 2022 in and outside Australia. Participants were asked to rate the perceived impact of multiple person, workplace and society-related factors on their personal workability on a seven-point Likert-Scale ranging from 'very hindering' to 'very helpful'. Data analysis included descriptive statistics and linear regression analysis to determine the most common barriers and enablers for workability among mature workers. **Results:** Preliminary findings from 425 mature workers will be presented that is specifically tailored to the needs of mature workers. **Conclusion:** A workability framework will be presented that is specifically tailored to the needs of mature workers. **Conclusion:** A workability framework will be presented that is specifically tailored to the needs of mature workers. **Conclusion:** A workability framework that reflects the unique needs of mature workers offers a sound basis for the development of suitable instruments and interventions to support the workability of this growing workforce population.

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#### Quantitative Analysis of Efficacy and Associated Factors of Platelet Rich Plasma Treatment for Osteoarthritis

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**Background:** While platelet rich plasma (PRP) has been extensively studied in treating osteoarthritis (OA), there has been ongoing debate regarding the efficacy of PRP and the optimal subpopulation for PRP treatment remains unknown. **Objective:** We established a pharmacodynamic model-based meta-analysis (MBMA) to quantitatively evaluate PRP efficacy, to compare with hyaluronic acid (HA) and identify relevant factors that affect the efficacy of PRP treatment for OA. **Methods:** We searched for PubMed and Cochrane Library Central Register of Controlled Trials of PRP randomised controlled trials (RCTs) for the treatment of symptomatic or radiographic OA from the inception dates to April 21, 2022. Participants' clinical and demographic characteristics and efficacy data, defined as Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) and visual analog scale (VAS) pain scores at each time point were extracted. **Results:** A total of 45 RCTs (3,396 participants) involving 1,805 participants injected with PRP were included in the analysis. PRP reached a peak efficacy at approximately 2 to 3 months after injection in patients with OA. Both conventional meta-analysis and pharmacodynamic maximal effect models showed that PRP was significantly more effective than HA for joint pain and function impairment (additional decrease of 1.1, 0.5, 4.3 and 1.1 scores compared to HA treatment at 12 months for WOMAC pain, stiffness, function and VAS pain scores, respectively). Higher baseline symptom scores, older age ( $\geq$  60 years), higher body mass index (BMI) ( $\geq$  30), lower Kellgren-Lawrence (K-L) OA severity grade ( $\leq$  2) and shorter OA duration (< 6 months) were significantly associated with greater efficacy of PRP treatment. **Conclusions:** These findings provide clear support that PRP is a more effective treatment of OA than the more well-known HA treatment. We also determined the time when the PRP injection reaches peak efficacy and optimised the targeting subpopulation of OA. Further high-quality RCTs are r

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#### 'Brainwork Practices': Responsibilisation of Dementia Prevention in Australian Aged Care Discourse

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This paper argues that brain health advice, a recurrent theme in Australian aged care public discourse, constructs a moral framework of 'brainwork practices' for self-responsibility for cognitive health and dementia prevention in older age. **Background:** Concern about dementia-related health and social challenges is a key feature of public discourse on Australia's ageing population, where dementia is often characterised as a 'disaster' and 'burden'. At the same time, another major theme in contemporary ageing is how to age 'successfully'. Brain health advice are normative messages on how to reduce the risk of cognitive decline and prevent dementia in a successful older age, and take the form of lifestyle recommendations on diet, exercise and 'brain fitness'. **Objective:** This paper explores the role of brain health advice in the discursive construction of dementia and self-responsibilisation of cognitive health and the ageing brain in Australian aged care public discourse. **Method:** This paper presents findings about the theme of brain health advice emergent from a discourse analysis study of publicly accessible online documents investigating the role of institutional stakeholders in the Australian aged care sector. **Findings:** The study revealed three key concepts in the discursive construction of dementia in the aged care public discourse. The first concept characterises dementia as a disastrous force that must be opposed; the second is a biomedical concept of dementia as preventable (or at least able to be delayed) in a 'successful' older age, while the third concept reflects neurocultural ideas that fetishise perfect memory as the best defence against cognitive decline and dementia. **Conclusion:** Together, these responsibilising narratives in the sample of aged care public discourse construct a moral framework of 'brainwork practices' that advocates self-management of the ageing brain and contributes to conceptions of cognitive decline and dementia as 'failed' or 'unsuccessful' ageing.

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## The Association of Edentulism and Self-reported Oral Health with All-cause Mortality in Older Adults: The Results of the ASPREE Longitudinal Study of Older Persons

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**Background**: Tooth loss has been linked with higher all-cause mortality risk in older adults, however, less is known about the effect of self-reported oral health. **Objective:** To explore the association between oral health status and all-cause mortality in older adults. **Methods:** This is a prospective cohort study of 12,809 Australian adults aged 70 years and over (54.3% women), participants of the ASPirin for Reducing Events in the Elderly (ASPREE) Longitudinal Study of Older Persons (ALSOP). Participants reported oral health status and presence of natural teeth. The association of baseline self-reported oral health (poor/fair/good/very good/excellent), edentulism (loss of all natural teeth) and the integrative measure of the two with all-cause mortality (median follow up 6.4 years), was explored using Cox-regression models adjusted for age, gender, socio-economic status, health-related behaviours, weight status, aspirin and polypharmacy. Hazard ratios and 95% confidence intervals were reported. **Results:** 22.2% participants reported edentulism, and 13.8% fair/poor oral health. After adjustment for confounders, the risk of all-cause mortality was higher among those with edentulism (vs. no edentulism; 1.43 (1.18-1.73)). The risk of all-cause mortality was also higher in those with edentulism and reporting poor/fair oral health (1.69 (1.02-2.82)), or with no edentulism but reporting poor/fair oral health (1.46 (1.19-1.80)), compared with people reporting no edentulism and good/very good/excellent oral health. No association was observed between self-reported oral health compared with their counterparts with teeth and more favourable self-reported oral health. Self-reported oral health alone and all-cause mortality. **Conclusions:** Risk of all-cause mortality was 69% higher among older adults reporting both edentulism and poor/fair oral health compared with their counterparts with teeth and more favourable self-reported oral health. Self-reported oral health alone ad all-cause mortality. Conclusions: Risk of al

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#### Prevalence and Risk Factors for Falls and Fall-related Injuries in the National Post-acute and Long-term Care Study

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Background: Falls and fall-related injuries are common in older adults living in long-term care facilities. However, the existing epidemiological data on falls in this setting are nearly 30 years old and not nationally representative. **Objective:** We utilised a nationally representative sample of longterm care residents in the US to evaluate the prevalence and risk factors for falls and fall-related injuries. Methods: The data was drawn from the 2018 National Post-acute and Long-term Care Study (NPLCS) survey, comprising 904 residents from 419 licensed Residential Care Communities (representing 918,726 residents in the US). The NPLCS survey drew from a random sample of licensed residential community centers (RCC) in each of the 50 states and the District of Columbia in the US. Descriptive statistics and logistic regression were conducted using "svyset" in Stata (MP16). Odds ratios (ORs) and 95% confidence intervals (CIs) were used to estimate risk factors associated with 1) falls and 2) fall-related injuries. both of which were defined as an occurrence in the past 90 days at the RCC, after accounting for survey sampling weights. Results: We included 876 residents with available fall history [mean (SE): 83.3 (0.5) years; female (67%); white (89.6%)], . The prevalence of falls was 26.4%, among which 36.4% resulted in fall-related injuries. For falls, partial (3-5) or full dependence ( $\leq 2$ ) measured by the Katz Activities of Daily Living index was associated with increased falls risk by over threefold [OR (95%CI): 3.53 (1.56, 8.42); 4.03 (1.52, 10.69), respectively]. Antipsychotic use was also associated with increased fall risk among those with dementia [2.33 (1.11, 4.90)]. Black residents [2.07 (1.39, 7.89)], residents with cognitive impairment [3.88 (1.73, 8.84)], residents who had emergency department /hospital visits [3.57 (1.82, 7.02)], and those with 2-5 comorbidities [3.00 (1.11, 8.11)] had over 2-fold increased likelihood of fall-related injuries. Conclusions: In this nationally representative sample of US residential care community residents, the prevalence of falls was 26.4%. The strongest risk factors for falls and fall-related injuries included dependence on daily living activities and cognitive impairment, respectively.

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#### How do Aged Care Staff Apply Trauma-informed Care in Daily Practice? A Case Study

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**Background:** Increasing numbers of older people enter aged care services with mental health problems and life histories of trauma, yet few aged care services claim to be trauma-informed. The Royal Commission into Aged Care Quality and Safety found poor understanding of these conditions in aged care despite available resources and training. This results in poor care and unnecessary re-traumatisation of older people in care. Staff risk burnout and vicarious traumatisation from exposure to triggered trauma responses. **Objective:** We partnered with a recognised provider of trauma-aware aged care, to describe how staff apply their knowledge in everyday practice and sustain self-care. The objective was to understand how trauma-informed care is understood and used by aged care staff. **Method:** In this case study we used appreciative enquiry methods in semi-structured interviews with a range of selected employees to seek examples of how they applied trauma-informed care in their daily work and how they maintained selfcare. **Results:** Interviews were conducted with 8 selected experienced staff (personal care assistants, health and well-being coordinators, veteran support officer, hospitality staff and one veteran volunteer). Examples identified in interviews were grouped into themes of understanding of the historical context of trauma, having a framework for understanding reactions, teamwork, systems and environmental supports staff, and environmental design, supported use of trauma informed care in daily practice. Improvements to training, supervision, and support of staff in dealing with trauma responses in their regular work, would strengthen the approach. Further research on factors adding to or mitigating against vicarious traumatisation in aged care services is needed to develop skilled aged care service responses.

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## Identifying Evidence-based Dementia Knowledge for the Australian Aged Care Workforce and the Public: Gaps and Future Opportunities

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**Objective:** In 2022, the Australian Government established the Aged Care Centre for Growth and Translational Research (now known as Aged Care Research and Industry Innovation Australia [ARIIA]) to engage with aged care workers, providers, researchers, and people who use aged care services with the goal of improving the quality of care for older Australians. Each year, the aged care sector nominates priority topics to ARIIA, which become the focus of projects within the Innovator Training Program, the Aged Care Partnering Program, and the Knowledge and Implementation Hub. This presentation identifies themes and gaps in the priority area of dementia care, and future opportunities for research. **Methods:** Through a scoping review of systematic reviews, the Hub team have summarised frequently evaluated interventions in dementia care. In addition, through an environmental scan, we identified Australian tools and resources related to dementia care which could be useful to the aged care sector. **Results:** The scoping review identified 34 discrete evidence themes (e.g., care worker training, reminiscence therapy). The environmental scan identified 350+ Australian resources (e.g., guidelines, e-learning, information sheets). Some theme topics had multiple related resources (e.g., person-centred care, advance care planning). However, some topics lacked any relevant resources that could support the sector to implement change within their workplace (e.g., case conferences, arts-based interventions, cognitive interventions, intergenerational programs). These gaps are important to identify as there are multiple approaches which are popular, but guides and resources are needed to ensure they are carried out appropriately and effectively. **Conclusions:** There is an increasing focus on dementia care research and resource development for translation into practice. The gaps identified may offer opportunities for emerging researchers to focus on translation of existing knowledge for aged care staff, and how evidence-based practic

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#### Metabolic Connectivity as a Biomarker of Age-associated Neurodegeneration and Cognitive-decline

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Background: Functional MRI (fMRI) is a common measure of functional brain activity in ageing research. Despite its popularity, it is difficult to interpret as an unambiguous measure of neuronal activity. fMRI relies on blood-oxygen level-dependent (BOLD) signals to indirectly measure neuronal activity. However, as the BOLD response relies upon the coupling of neuronal activity to vascular function, it can be difficult to determine if age-related changes in BOLD signals are attributable to changes in neuronal function, or due to changes in cerebrovascular health. These limitations of fMRI-only studies can be circumvented through the use of novel simultaneous fMRI-fPET methods. FDG-PET (Fluorodeoxyglucose-PET) provides a quantitative and more direct measure of neuronal activity and is more resilient to cerebrovasculature changes than fMRI. Therefore, measuring both fMRI and fPET at once can provide multiple perspectives on age-associated functional connectivity trends. Objective: The MetConn study will examine typical brain-ageing by simultaneously capturing metabolic, functional and structural measures of connectivity in adults aged 20-to-85. In doing so, this study aims to (1) identify how changes in metabolic connectivity during adult development could help predict or protect against late-life decline, and (2) examine co-variation of glucose transporters with fMRI signal and FDG-PET uptake in younger and older adults. Method: Approximately 80 healthy participants, evenly divided into younger (20-35) and older (60-85) adults will be recruited and invited to complete two in-person testing sessions on site at Monash Biomedical Imaging. Session one consists of a cognitive-testing battery where performance over a range of cognitive-domains is tested, followed by a second session consisting of a 90-minute resting-state simultaneous fMRIfPET scan: a newly developed hybrid neuroimaging method enabling researchers to collect two independent brain-scans (functional MRI and functional PET) at once, providing complementary perspectives of brain-function and energy-consumption, which was until recently impossible. APOE-status and insulin-resistance is also monitored.

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#### Radiographers' Experiences of Older Population Diagnostic Medical Imaging Service Encounters: A Person-centred Approach

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**Background:** Medical imaging services are an important component of multidisciplinary diagnosis and disease management planning in the older population. The role of the radiographer is to acquire an optimal quality image to answer a clinical question without compromising care and safety of the patient. Person-centred care is recommended as a global strategy to address the diverse and expanding care needs of an ageing population. In this regard, a medical imaging encounter should be timely, safe, effective, equitable and follow a person-centred approach. Person-centred care refers to the respect and responsiveness to the needs, preferences and values of the individual patient. The person-centred experience of diagnostic imaging is inherently integrated and cannot be treated in isolation from the overall medical encounter. Currently, there are very few studies that have explored a person-centred approach to obtaining a medical imaging examination of optimal quality. **Objective:** To explore radiographers' experiences and perspectives on older patient medical imaging service encounters within a person-centred context. **Methods:** A qualitative explorative approach with a purposive sampling technique is proposed. Data collection entails recruitment from July 2022 to October 2022, using open-ended interviews with radiographers practicing in Australian public and private clinical settings. Sample size will be governed by data saturation. Data interpretation and analysis will be concurrent to establish preliminary categories, followed by themes and subthemes. **Results:** This is a work in progress, so preliminary analysis of the data will be discussed drawing upon the relevant literature. Prominent categories related to the ageing population that have emerged so far include the following: adapting to unique circumstances, communication styles and the technicalities involved in producing a diagnostic radiograph. **Conclusion:** This study could inform on the development of best practice principles for person-centred medica

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#### The Role of Aged Care Assessors in Rationing Aged Care Resources as Street Level Bureaucrats

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The Royal Commission into Aged Care Quality and Safety recommended the Australian Government end the rationing of aged care resources by introducing a new planning regime based on need. Aged care assessors are tasked with allocating the limited aged care resources provided by the Government to older Australians who seek support. However, this act of determining eligibility for home care and / or residential aged care at the individual level is an act of micro rationing of aged care resources. The hypothesis of my research is that micro rationing through the aged care assessment process is resulting in an inequitable distribution of Government funded aged care. The aim of the project is to identify how micro rationing is occurring through the current assessment process, how it is regulated and how it impacts older Australians. I am employing a mixed methods research strategy including documentary research using the data gathered by the Royal Commission, legal research to understand the legal framework for assessments and interviews with current and ex assessors from across Australia. This data can then be used to identify areas where the adverse impacts of micro rationing may be mitigated to maximise the likelihood of providing a fairer allocation of resources to support the oasessors as street level bureaucrats. This theory centres around the impacts of discretionary decision making by autonomous public facing professionals tasked with administering scarce resources. This is a key theory applied in my research into the role contemporary aged care assessors play in rationing aged care services.

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## "Incontinence Presented Most Problems with Sleep": Experiences of Sleep Disturbance Associated with Incontinence in Dementia-related Care

#### FEARN Jaime<sup>1</sup>, BURHOLT Vanessa<sup>2</sup>, GIBSON Rosemary<sup>1</sup>

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**Background:** Incontinence is increasingly recognised as a symptom of dementia and is more common at night. This has repercussions for the sleep status of people with dementia and their informal carers. This is important as sleep disruptions can exacerbate some of the waking symptoms of dementia, as well as affect the carers capacity to care, influencing their health and wellbeing. Despite this, the person-centred experience of informal carers managing dementia-related incontinence and the subsequent impacts is largely underrepresented. **Method:** Thematic analysis is used on continence-related comments within responses from 526 carers participating in an anonymous sleep survey. Further narrative assessment is used on the follow-up interview data provided by 20 carers from the initial survey, whose care recipient had since transitioned into formal care. **Results:** Basic and global themes concerning continence in relation to the sleeping and waking lives of informal carers and those they support will be presented, alongside overarching narratives of sleep and caregiving. These include content concerning the progressive changes to toileting needs and sleep disruptions with ageing and dementia-related decline; incontinence and its management creating a significant issue for sleeping and waking life; and how incontinence ultimately impacts carers quality of life and ability to cope. **Conclusions:** Incontinence can have a profound impact on sleep and subsequent wellbeing within dementia care, having the potential to jeopardise the overall informal care situation. Findings will inform future research in the field of sleep and ageing, as well as strategies for supporting those affected by dementia. In particular, the results will be used to inform the co-production of a core outcome set that comprises appropriate quality indicators for people living with dementia, their caregivers, and whānau (family), so that good continence care can be measured in future complex interventions, and so that carers have access to suppor

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# The Effectiveness and Characteristics of Communication Partner Training Programs for Families of People with Dementia: A Systematic Review

## FOLDER Naomi<sup>1</sup>, POWER Emma<sup>1</sup>, RIETDIJK Rachael<sup>2</sup>, TOGHER Leanne<sup>2</sup>, PARKER, Deborah<sup>1</sup>

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Background: Communication partner training (CPT) is an essential component of dementia care. However, previous systematic reviews on dementia CPT have a substantial focus on formal carers or professionals. As informal carers are the largest portion of carers in the community, there is a significant need to understand the effectiveness of family-specific CPT programs and identify gaps in research to inform future CPT programs. Objective: The objective of this study was to understand the effectiveness of CPT for families of people with dementia, and to describe key characteristics of CPT programs, including their creation, implementation, and outcome measures. Method: A systematic review was conducted following PRISMA guidelines. Databases were searched between November 2021 and April 2022. The search strategy was based on CPT interventions or protocols specific to families of people with dementia. A narrative synthesis was conducted using the Intervention Taxonomy (ITAX) and Template for Intervention Description and Replication (TIDieR) checklist. Quality assessment was completed using the JBI Critical Appraisal tools and the Mixed Methods Appraisal Tool (MMAT). Results: Of the 3172 studies identified, 32 studies were included in the review. Studies included RCTs, non-RCTs, pre-post trials, case reports, and gualitative designs. Overall, CPT for families showed improvements in knowledge and in observed use of skills. Self-report and psychosocial measures showed mixed results. Intervention descriptions varied with few fulfilling all items of the TIDieR. CPT programs were mostly designed by authors based on evidence and/or theory, with five programs including consumer involvement. Most programs were delivered face to face, with one delivered online. There was significant variety in materials, program duration, outcome measures, and behaviour change strategies. Conclusion: CPT programs positively impact the knowledge and skills of families of people with dementia. Future research should address identified gaps in CPT, including telehealth programs, consumer involvement, and thorough intervention descriptions.

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#### The Impact of Hearing Loss on Mental Health and Loneliness in Tonal Language-Speaking Older Adults in China

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Background: Age-related hearing loss, mental health conditions and loneliness commonly affect older adults. Objective: This study aimed to determine whether untreated hearing loss is independently associated with depression, anxiety, stress, and loneliness in tonal language-speaking older adults 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 and provided information on living arrangements, marital status, leisure activities, tobacco and alcohol use, and medical history. The Mandarin version of the De Jong Gierveld Loneliness Scale was used to measure Ioneliness and the Mandarin version of the 21-item Depression Anxiety Stress Scale (DASS-21) was used to assess a range of symptoms common to depression, stress, and anxiety of the participants. The analysis focused on determining the predictors of depression, anxiety and stress, and the predictors of measures of loneliness. **Results:** Multiple stepwise regression analyses revealed that emotional loneliness ( $\beta$ =0.303, p<0.001) and living status ( $\beta$ =0.110, p=0.048) significantly predicted DASS depression scores; emotional loneliness ( $\beta$ =0.276, p<0.001) and a history of vascular disease ( $\beta$ =0.148, p=0.009) were significantly related to DASS anxiety scores; emotional loneliness ( $\beta$ =0.341, p<0.001) and a history of vascular disease ( $\beta$ =0.129, p=0.019) significantly predicted DASS stress scores. Furthermore, multiple stepwise regression analyses showed that DASS stress scores ( $\beta$ =0.333, p<0.001), education years ( $\beta$ =-0.126, p=0.020), marriage status ( $\beta$ =0.122, p=0.024) and a history of vascular disease (β=0.111, p=0.044) significantly predicted emotional loneliness; four-frequency average hearing loss (β=0.149, p=0.010) and DASS stress scores (B=0.123, p=0.034) significantly predicted social loneliness scale; four-frequency average hearing loss (B=0.167, p=0.003) and DASS stress scores  $(\beta=0.279, p<0.001)$  also significantly predicted overall loneliness. There were no significant associations with high-frequency hearing loss. Conclusion: This study revealed that loneliness has a significant relationship both with hearing loss and mental health in an older adult Mandarinspeaking population. However, mental health was not significantly associated with hearing loss in this population.

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## **Cultural Encounters for Wellbeing in the Third Age**

#### **GAN Lena**

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**Background:** We are living in times of rapid change at multiple levels. Leading up to and after retirement, one is faced with physical, psychosocial, social, economic, environmental and spatio-temporal changes. Shifts in health, mobility, vision, hearing and cognitive function, impact self-esteem, confidence, sense of belonging, meaning and purpose in life. After retirement, individuals are vulnerable to ageist societal stereotypes and attitudes, both self-directed and from external sources. These internal and external changes require the renegotiation of relationships with the self, one's body, one's communities and society in general. **Context:** Museums, like libraries juxtapose heterogeneous content, spaces and times in an environment that is itself outside of time. In museums, time is non-linear, immersive and experiential and fosters the interaction of personal memories, identities and imagination on the one hand and public objects, histories, narratives, archives, cultures, perspective, meanings and so on, on the other. **Objective:** This research addresses the potential of museums to enhance the wellbeing of older adults. Using the interviews, surveys and videoed accompanied visits from four museum sites in Australia, New Zealand, France and the UK, this presentation will examine the ways in which older people use museums to consolidate their identity, extend their sense of self, and make meaning of the many changes to which they are subjected. It will look at how encountering others and other ways of being in the world can provide different ways of seeing and understanding one's own life and how dwelling in possibility can open us up to that which is new, expansive and capacitating. **Conclusion:** This research points to the potential to better leverage fully staffed and ubiquitous cultural institutions like museums to foster the identity work of older visitors and to undertake outreach programs in their communities.

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#### Navigating Away from Moral Distress: The Case for Preparing the Aged Care Workforce for Moral Navigation

#### **GREEN Lachlan**

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**Background:** Navigating ethical scenarios can be distressing and exhausting, and frontline aged care workers frequently confront complex ethical scenarios. The intricacies of aged care can cause conflict between dignity of choice and a duty of care, and can put workers in situations where work expectations will conflict with internal moral beliefs. Facing these scenarios without any formal preparation contributes to burn out and feelings of confusion and resentment. With a significant public policy focus on staffing numbers and funding models, limited work has been done to examine innovative methods for upskilling frontline workers. **Objective:** Conceptual research aimed to determine what skills are required to prepare the workforce for moral navigation, and whether innovative philosophical education methods could develop these skills. **Method:** The findings and case studies of the Royal Commission into Aged Care Quality and Safety were analysed through a lens of moral philosophy with a view to determine areas for ethical development. These areas were compared with a detailed literature review of the outcomes of democratic, philosophical inquiry education. **Results:** Literature suggests participation in an ethical inquiry education program can increase the ability to recognise and understand navigation. **Conclusion:** The Royal Commission detailed scenarios in which frontline care workers clearly could have benefited from enhanced reasoning and inquiry skills. The skills developed through a democratic, inquiry-based training program, particularly focused on ethical inquiry, align closely with workforce opportunities for improvement. The presentation proposes the development and implementation of functional, inquiry-based training for the frontline aged care workforce.

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## Exploring Dementia Diagnosis Experiences in Regional and Rural Australia: A Qualitative Study

## **<u>GULLINE Hannah</u><sup>1</sup>, CARMODY Sarah<sup>1</sup>, BERKOVIC Danielle<sup>1,2</sup>, AYTON Darshini<sup>1</sup>**

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**Background:** Over the past decade, substantial research has been conducted to improve dementia diagnostic technologies. Expanding insight into rural patients' and caregivers' experiences of the dementia diagnosis process will facilitate the translation of these advances into clinical practice. **Objective:** To develop an understanding of the dementia diagnosis process from the perspective of rural patients and caregivers. **Method:** Semi-structured interviews will be conducted with participants having experienced the dementia diagnosis process in rural Australia as either the patient or caregivers. Each participant will have a rural residence, classified according to the Monash Modified Model. Data collection will also include an optional river of life activity to visually portray the diagnostic journey. Interview data will be analysed using qualitative thematic analysis, and the river of life exercise will utilise content analysis. The interview guide and river of life instructions were developed with guidance from a consumer advisory committee, with several members of the committee participating in pilot interviews. Ten patients or caregivers from rural Australia are anticipated to consent to participate in the study. **Results:** We will present the results from the patient and caregivers and river of life activity in relation to the diagnostic process regarding the health professionals involved, the diagnostic tests performed and the communication between the clinicians and the patients and caregivers. Furthermore, this paper discusses the factors that the caregivers and patients perceived to be beneficial/good and unhelpful/need improvement. Recommendations for improving the dementia diagnosis process are also detailed. **Conclusion:** This paper will facilitate the implementation of facilitators, barriers, and areas for improvement. Enhancing the dementia diagnostic procedure will reduce the uncertainty, limiting the prevalence and subsequent burden of delayed and incorrect diagnosis among rural communities.

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## Radio Listening, Identity and Company

#### HAMMILL Amber

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Older radio listeners in New Zealand are an under-researched and poorly understood audience. Listeners aged 75+, a growing demographic, are not included in the regularly published listener data and there is little insight into their listening experiences. This presentation shares the findings of a study undertaken with 15 radio listeners who experience the radio as company. Using feminist grounded theory, this research worked to build a substantive theory of how people construct company through radio listening. Participants were aged 75+, living in the community and self-identified as using the radio for company. The study generated data through interviews with older listeners, and by taking pictures of their listening devices in situ. By beginning from the premise that in using their radios for company, these listeners are demonstrating agency and are engaged in bi-directional social capital and relationship building through the act of listening, the findings of this study can also contribute to challenging stereotypes of this demographic as disengaged and lacking agency. This research offers deep insights into the listening experiences of radio listeners aged 75+. Understanding the radio as company means that the convivial possibilities of the medium might be maintained or leveraged further by radio, health, social inclusion and policy workers. The potential contribution of this work to the study of loneliness lies in it being a study of self-generating solutions by people in a demographic frequently targeted by interventions. This research also offers a unique contribution to the use of visual data in grounded theory research.

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## Validation of the Partial Automation Acceptance Scale (PAAS) in Older Drivers

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Older drivers are over-represented in crash statistics. New partial automation technologies in cars such as Advanced Driver Assistive Systems (ADAS) offer an opportunity to improve driver safety, especially in older drivers. However, little is known about how older adults trust in and accept ADAS in their cars. While some measures explore technology acceptance or trust in automation, none do so in the context of ADAS or in older drivers. The purpose of this study was to validate an instrument of acceptance of and trust in ADAS in older drivers. The sample comprised 1330 Australian licensed drivers aged 65 years and older who were members or affiliates of National Seniors Australia. Drawing on existing measures and directed by theories of trust, a new 22-item measure was developed—the Partial Automation Acceptance Scale (PAAS). The PAAS explored attitudes towards ADAS, perceptions of use and ease of use, trust, as well as intentions to use ADAS. Exploratory factor analysis on half of the sample, confirmed that all items, except three which were removed from further analysis, on the emergent six-factor model were correlated as expected. To confirm that the six-factor model was the most appropriate, providing evidence of the validity and reliability of the PAAS. Due to high interitem correlations, a second-order analysis was completed identifying an overarching construct that explained some of the items variance. The results provide support for a six-factor second order model consisting of 19 items that measure the acceptance of and trust in partial automation, or ADAS. The results provide evidence of the reliability and validity of the PAAS within the older-driver context, and is suggested to be used in future work assessing acceptance of ADAS.

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# Vitamin D and Cognitive Performance in Community-dwelling Adults: A Systematic Review and Dose-response Meta-analysis of Observational Studies

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Background: Biological research suggests vitamin D is neuroprotective in the brain. In observational studies of older adults, low vitamin D status is consistently associated with poorer global cognition. However, findings in relation to high vitamin D status have been mixed, and an optimal status is unknown. Objective: The aim of our meta-analysis was to characterise the dose-response association between circulating 25-hydroxyvitamin D (25OHD) levels, the standard measure of vitamin D, and cognitive performance in community-dwelling adults. Method: We searched Medline, EMBASE, PsycInfo, Web of Science, Global Health, and ProQuest databases for observational studies examining vitamin D and cognition. Articles eligible for inclusion were those that drew from community-dwelling adult populations, reported outcomes based on neuropsychological tests and treated 25OHD levels as either continuous or categorical (with three or more levels). Primary outcomes were cross-sectional and longitudinal performance in global cognition and specific domains of attention, executive function, and memory. After gualitative review, studies that categorised 25OHD levels were pooled in random-effects, dose-response models, with restricted cubic splines applied to assess nonlinearity. Results: From 1046 records identified by our search strategy, 57 studies were included in the gualitative review and 38 in the dose-response meta-analyses. The latter identified positive and nonlinear associations between circulating 25OHD and global cognitive performance. Compared with 60 nM/L (reference), levels of 20 nM/L were associated with global cognition that was 0.26 SD poorer (95% CI: -0.33, -0.18) in cross-sectional analysis and 0.18 SD poorer (95% CI: -0.24, -0.12) longitudinally. Above levels of 60-70 nM/L, no further improvement was observed in cross-sectional analysis of global cognition, but a positive association continued longitudinally. Positive associations of smaller magnitude were noted for executive function and memory up to levels of 60-70 nM/L in longitudinal but not cross-sectional analyses. Conclusion: Our study suggests a vitamin D status of at least 60-70 nM/L is associated with optimal cognitive performance. The maintenance of such levels through adulthood may support brain health and protect against cognitive decline in later life.

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## Characteristics of Volunteer Work and their Implications for Wellbeing in Older Adults

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While the benefits of engaging in formal volunteering in later life are well-documented, few studies have examined the conditions under which volunteering produces these favourable effects. Such information is needed to guide the development of volunteer programs that optimise these outcomes for older adults. The present study used latent profile analysis (LPA) to identify volunteering profiles based on four higher-order work design characteristics (i.e., task, knowledge, social and contextual) and explored whether profile members differed in wellbeing outcomes. Cross-sectional data was gathered from a community-based sample of 169 older adult volunteers aged between 61 and 90 years (M = 72.96, SD = 5.11). Using LPA, a three-profile solution showed the best model fit. Profiles were labelled *Moderately Favourable Work Design* (Profile 1, n = 90); *Highly Favourable Work Design* (Profile 2, n = 41); and *Less Favourable Work Design with Low Job Complexity* (Profile 3, n = 38). Using *Less Favourable, Low complexity* volunteer work design as the reference group, we found that individuals with higher psychological flourishing had greater probability of belonging to Profile 2 (Highly Favourable) compared to Profile 3 (Less Favourable, Low Complexity). In contrast, individuals with higher levels of positive affect had greater roles which are more complex and have more opportunity for creative and complex problem solving may provide individuals with greater feelings of purpose and meaning in life. In comparison, more routine, less challenging roles may be conducive to the experience of positive emotions. This study builds upon limited literature assessing conditions under which volunteering produces favourable effects. The findings point to the potential importance of volunteer role complexity in enhancing wellbeing outcomes for older adults.

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## Exploring the Role of Nursing in Multicomponent Intervention Delivery for Delirium for Older People in Hospital

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**Background:** In 2016 the Australian Commission on Safety and Quality in Health Care published the Delirium Clinical Care Standard highlighting care needs for older patients in hospital at risk of and with delirium. The standard was updated again in 2021, and recommends patients receive a bundle of care, known as a multicomponent intervention, to prevent delirium or to reduce the severity of delirium if it has been acquired. Delirium is a serious and common complication for older people in hospital and is associated with poor cognitive and functional outcomes. **Objective:** The purpose of this study was to explore the nurse's role in the delivery of the multicomponent intervention in delirium prevention studies. **Method:** A systematic review was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Checklist. **Results:** 4996 studies were identified through the database searches with 197 full text articles being assessed for eligibility. Of these, 17 studies were included in the analysis. Findings from the 17 studies show that whilst nurses are involved in the intervention delivery, ward nursing staff were not often involved, with staff largely drawn from research and multidisciplinary teams external to the ward. Whilst this is not surprising, the failure to involve ward nursing staff at all levels to ensure the intervention is properly embedded in and self-sustaining once the research team moves on. **Conclusion:** This research points to the need to further explore the nurse's role in delirium prevention where ward nurses are an active participant in intervention delivery.

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## Real-time Automated Detection of Older Adults' Hand Gestures in Home and Clinical Settings

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**Background:** There is an urgent need, accelerated by the COVID-19 pandemic, for accessible methods that help clinicians and researchers to remotely evaluate hand movements. This would help detect and monitor degenerative brain disorders such as Parkinson's and Alzheimer's disease via telemedicine. Computer cameras are widely accessible in homes and clinics but automatic detection of hand gestures using 'computer vision' in these real-life settings is challenging due to motion blur, cluttered backgrounds and variable hand-camera distances. **Objective:** To develop a computer vision-based method that accurately detects older adults' hand gestures using video data collected in real-life home and clinical settings. **Method:** We invited adults ≥50 years old to complete validated hand movement tests (fast finger tapping and hand opening-closing) at home or in clinic. Data was collected without researcher-supervision via a website program (TAS Test) using standard laptop and desktop cameras. We processed and labelled images, split the data into training, validation and testing sets, then analysed how well different deep learning models detected hand gestures. **Results:** We recruited 1,900 adults (mean [67], range [50-90] years) and developed UTAS7K - a new dataset of 7,071 hand gesture images, split 4:1 into clear: motion- blurred images. Our new model, RGRNet, achieved 0.782 mean average precision (mAP) with real-time hand gesture detection, outperforming the state-of-the-art computer vision models (YOLOV5P6, mAP 0.776). **Conclusion:** Our new real-time computer-vision method automatically detects hand gestures using standard computer cameras. Specifically, it can detect finger tapping open and closed positions, providing a potential new tool for automated measures of motor control and hand gesture agraxia. This has wide applications for ageing research where it could provide objective outcome measures for clinical monitoring and intervention trials.

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# Efficacy and Neural Mechanisms of Computerised Cognitive Training in Huntington's Disease: Protocol for Randomised Controlled Trial

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**Background:** Huntington's disease (HD) is a genetically inherited neurodegenerative disease that causes progressive decline in cognitive, motor, and psychiatric functions. Although disease onset typically occurs around 40 years of age, cognitive decline begins many years prior to clinical diagnosis. Further, cognitive impairment has a significant impact on quality of life, but there are currently no effective treatments. Computerised cognitive training (CCT) has been found to effectively improve cognitive function in other populations, such as multiple sclerosis, by increasing connectivity of functional brain networks. However, its efficacy and mechanisms have not been thoroughly investigated in HD. **Objective:** This study aims to examine the effects of CCT on cognition, patient-reported outcomes, and functional brain connectivity, in a randomised controlled trial. **Method:** *N* = 50 participants (pre-manifest and early-stage HD) will be recruited and randomly allocated to either intervention or control group. Intervention group participants will complete CCT over 12 weeks (2 x 60 min sessions/week). Control group participants will read monthly newsletters on lifestyle factors associated with cognitive function and receive access to CCT after the study period. At baseline and follow-up, participants will complete cognitive tests and questionnaires, and a subset of participants (*n* = 30) will undergo functional MRI scanning. Analyses will examine changes in outcomes from baseline to follow-up in the CCT group, compared to the control group. The primary outcome is change in processing speed. Secondary outcomes include change in other cognitive domains, including working memory and inhibition, patient-reported outcomes such as mood, and functional connectivity of task-activated and resting-state brain networks. **Discussion:** This study is now recruiting participants until approximately September 2023. Outcomes from this study will provide insight into the efficacy and neural mechanisms of CCT in HD and support t

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# How Can We Improve High Quality Advance Personal Planning for Older People? Perspectives of Key Informants Can Pave the New Direction

#### **JOHNSTON Briony**

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**Background:** Advance Personal Planning (APP) describes contemplating, discussing, and recording an individual's wishes for future legal, financial, health, and personal matters. It may involve completing a will, an Advance Care Directive, and appointing future decision-makers. It is broader than traditional Advance Care Planning (ACP) which relates to healthcare only. While the literature considering ACP is established, including studies relating to the experiences of older people, APP is still an emerging area of research. **Objective:** This presentation will report on results of qualitative research exploring APP from the perspectives of key informants, including older people, lawyers, and health professionals. Key questions included: barriers and facilitators to engagement; factors influencing the quality of APP; confidence in future use; and opportunities for improvement. **Method:** Semi-structured interviews were conducted with 50 key informants between October 2020 and June 2022 via telephone or web-conference. Data were coded in NVivo and analysed thematically. **Results:** Prevalence of APP instruments among older people was high. Common prompts for engaging with APP included wanting to be prepared and a change in health or personal circumstances. Barriers included not feeling ready to engage and not having a trusted person to appoint as a decision-maker. Professional key informants cited a lack of understanding of planning mechanisms and planning that is not personalised as factors that could impact the quality of APP for older people. When discussing barriers relating to future use, key informants stated plans were not always followed and documents were often not accessible. **Conclusion:** This presentation will provide new data regarding APP for older people that is currently missing in the available literature. Opportunities for improvement will be highlighted, including education, integration into usual practice, and reform. Recommendations will be made at individual, community, and structural levels,

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# Creating Safety, Power and Self-worth: Developing and Prototype Testing a Trauma-informed Approach to Story Work in Aged Care

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Transitions and changes in the later stage of life, particularly into residential aged care, can have major impacts on the psychosocial wellbeing of older people. Experiences of reduced autonomy, choice, control and sense of self are all common. One approach to help address this experience is Life Story Work, a type of narrative-based intervention which uses a biographical, reminiscence method, giving people the opportunity to talk about their life experiences. Previous research has identified several challenges and considerations, particularly in the residential aged care context, for conducting Life Story Work. Life review, posited as a core developmental milestone and natural process in older age, may trigger or exacerbate trauma-related symptoms. Additionally, up to 70% of older people have experienced a potentially psychologically traumatic event in their lifetime. Thus, creating a safe and supportive environment to conduct Life Story Work is vital. This project aimed to develop and prototype test a trauma-informed approach to Life Story Work, as a vehicle to support wellbeing and influence care delivery in residential aged care. An expert advisory panel was convened to develop the approach, translating the six principles of trauma-informed care to the Life Story Work model and residential aged care setting, resulting in a practice framework. Case studies will illustrate the operationalisation and benefits of a trauma-informed approach to Life Story Work, and learnings from the prototype testing. The implementation of this approach is being trialled and evaluated through a Type 3 hybrid implementation-effectiveness study, with potential benefits for residents, students/volunteers, aged care staff and the industry. This permits the testing of the implementation strategy, while gathering information and observing the effectiveness of the Storytelling Program.

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### **Dissecting the Molecular Processes Required to Sustain Healthy Lifespan**

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**Background:** The process of 'somatic maintenance' lies at the heart of almost all mechanistic theories of ageing. Somatic maintenance involves expending energy and resources to prevent and repair damage to the cell. It is widely hypothesised that ageing occurs when somatic maintenance breaks down and cellular damage accumulates, leading to various age-related pathologies and ultimately death. The exact type of damage responsible for ageing, however, remains unclear. **Objective:** This project aims to clearly define the processes which constitute life-sustaining somatic maintenance; this aim will be achieved by using the fruit fly *Drosophila melanogaster* to investigate the function of essential nutrients that allow organisms to perform somatic maintenance. Of the nutrients required by *Drosophila* there are 10 essential amino acids (AAs). **Method:** Using a fully synthetic diet, we can individually remove different essential AAs from the diet of adult *Drosophila*. **Results:** We have found that depending on which essential AA is omitted from the diet, we can elicit vastly different survival outcomes. Furthermore, we have found that this variation in survival response to each essential AA deprivation is entirely dependent on an AA sensor called GCN2 which is present in organisms from yeast through to humans. **Conclusion:** While there is very little known about how GCN2 protects higher organisms against dietary AA deprivation, these data suggest that there is a set of life-preserving processes that are maintained by GCN2 during essential AA deprivation. Understanding this role of GCN2 in lifespan assurance under essential AA deprivation will further define the mechanisms of somatic maintenance and ageing and could have important implications for the way we understand how diet modifies health and resilience throughout ageing.

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## An Exploration of the Efficacy of Geriatric Evaluation and Management (GEM) Units

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**Background:** The aim of admission to a Geriatric Evaluation and Management (GEM) unit is to maintain or restore function, manage common geriatric conditions, achieve independence in the shortest possible time, and enable a timely return to the community. To the best of our knowledge, no previous studies have explored the extent to which the enacted GEM practice aligned with ideal GEM practice. **Objectives:** This paper reports the findings of a recent mixed methods study conducted in two phases to understand the extent to which enacted practice aligns with ideal GEM practice. **Methods:** In phase 1, a literature review and semi-structured interviews conducted with GEM experts enabled an understanding of ideal GEM practice. In phase 2, an observational study was conducted to understand the pattern and level of activity of 69 patients admitted to a GEM unit located in Victoria, Australia. This phase was followed by interviewing GEM health professionals to understand their perspectives regarding the enacted practice. **Findings:** The findings showed that while the ideal practice emphasised the provision of a comprehensive rehabilitation service to all patients, enacted practice focused on providing light physical rehabilitation to patients with stable cognitive and behavioural status. Despite this current focus, the findings revealed that all patients, regardless of their cognitive impairments, spent a remarkably small proportion of their time in 'rehabilitative' activities. Further, current GEM patients were highly inactive, spent most of their time alone, in their bedrooms, and dressed in hospital gowns. However, in an ideal GEM practice and enacted GEM practice. **Implication:** These findings demonstrate an urgent need for recommendations that can increase the consistency between ideal and enacted GEM practice.

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## Development of the Online Dementia Risk Assessment Tool - CogDrisk

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**Background**: Evidence on dementia risk factors and effective risk reduction strategies are increasing. There is a need for a platform where the public can access the latest evidence, assess their risk of developing dementia in late-life and learn about areas where adopting health and lifestyle changes may ameliorate their chances of developing dementia. **Objective**: To build a web-based platform for the Cognitive Health and Dementia Risk Assessment (CogDrisk). **Method**: We developed the CogDrisk tool which involved several web technologies including WordPress, Storyline 360, Ember.js and Ruby on Rails. Evidence-based information on dementia and its prevention were taken from reliable resources like the World Health Organization (WHO) guidelines for risk reduction of cognitive decline and dementia and latest seminal systematic reviews. The individual has three options to select: 1) to do the assessment without participating in research, 2) set up an account so that they can save their results and repeat the assessment, 3) consent for their data to be used for research purposes. The risk reduction recommendations were built using Storyline 360. **Results**: The CogDrisk web platform provides the latest information on dementia and its risk factors and includes the assessment tool. All participants on completing the assessment will receive a personalised risk profile along with recommendations to reduce their risk. An option of risk score. **Conclusion**: We have built a platform for the public to assess their risk of developing dementia. We are in the process of conducting a feasibility and acceptability study to understand the effectiveness of online delivery and to develop guidelines to increase our ability to reach individuals who are at high risk of developing dementia.

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## Perceived Neighbourhood Safety and Physical Activity

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This paper investigates how older peoples' perception of neighbourhood safety may impact their decision to be physically active, using survey data from 2004 until 2014 from the United States Health and Retirement Study. Physical inactivity is one of the leading risk factors for chronic diseases and death worldwide. In particular in older ages, the percentage of persons who are insufficiently physically active increases substantially. In this paper, we study one likely barrier to physical activity: feeling unsafe in the neighbourhood of residence. Among older adults, walking in the local neighbourhood is, by far, the most popular physical activity. We use longitudinal data of 25,406 people living in the United States between the ages 50 to 85 to estimate the causal effect of perceived neighbourhood safety on physical activity over a 10-year period from 2004 to 2014. Applying an instrumental variable approach, we exploit within county variation in violent crime rates and use this as an instrument for self-reported perceived neighbourhood socio-economic characteristics, health measures, lifestyle factors as well as individual fixed effects. To capture changes in policy or infrastructure at the national and regional level and over time, we include time, region and region-specific time trends. We find that lower perceived neighbourhood safety lowers older people's physical activity behaviour. In addition to violent crime rates, we identify racial composition and signs of decay in a neighbourhood as the main drivers behind peoples' perception of neighbourhood safety. Our results suggest that urban planning to include more parks or areas for exercise may have little impact on physical activity if the area is perceived not to be safe. Future policies aimed at increasing physical activity levels may include the development of interventions that reduce crime and improve perceptions of neighbourhood safety.

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# Decline or Successful Ageing Discourses: When Local Knowledge and Dominant Discourses Intersect to Shape Personal Stories of Ageing

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**Background:** The decline and successful ageing discourses are key contemporary discourses of ageing, which provide contrasting identities for older people. Although the successful ageing discourse now appears to be globally dominant in policy and beyond, people's engagement with both these discourses varies by culture. People draw on discourses that are culturally available and legitimated in their contexts to produce ageing identities. **Objective:** This study explored the interaction between local understandings and the globally dominant discourses of ageing, focusing on how these shape personal stories about ageing and the subject positions provided by the discourses among older people who need family care. **Method:** Applying positioning-discursive analysis to the narrative data of older people and their use in self-positioning and positioning by others. **Results:** Four subject positions were identified, namely frail and vulnerable old person, disengaged and dependent family member, compliant patient, and unsuccessful ageing. We found that both 'decline' and 'successful ageing' discourses were used to legitimate a positive identity for being an older people who could not achieve successful ageing ideals. The policy implications and the importance of a life-course preventive approach to facilitate ageing well are discussed. For example, successful ageing requires adequate financial, social, cultural, and physical resources and a life-course approach, so it is imperative to integrate successful ageing within a broad range of policies (e.g., health, education, economics, labour) and promoted earlier in the life course. From a future oriented perspective, a successful ageing approach may provide more Balinese and Indonesians in general with an opportunity to age successfully in the longer term.

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## Gender Differences in the Association between Cognitive Reserve and Mild Cognitive Impairment

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**Background:** Recent evidence suggests that the influence of premorbid intelligence and education on the onset of subjective cognitive decline may be modulated by gender, where education contributes less to cognitive reserve (CR) in women than in men. **Objective:** To examine gender differences in the association between CR proxies (verbal intelligence, education, occupation, cognitive engagement) and conversion to mild cognitive impairment (MCI) in an Australian population-based cohort. We hypothesised that higher level of education, verbal intelligence, measured by the Spot the Word Test (STW), and cognitive engagement, would be associated with lower MCI risk, and that participants whose occupation involves managerial duties (vs supervisory or non-management roles) would have a lower risk of conversion to MCI. **Methods:** We included 1940 participants with complete data from wave 1 to 4 of the Personality and Total Health (PATH) through life study (wave 1: 49% Female, M<sub>age</sub>=62.52 (SD=1.51), age range=60-66 years). Cox regression models were conducted per gender to examine the association between CR proxies and MCI in wave 2 to 4, adjusting for age and Apolipoprotein E4 (apoE4) status. The dependent variable was number of days between the first assessment and the assessment where MCI was first diagnosed. **Results:** Every 1 SD increase in STW was associated with lower MCI risk among women only (HR=.83, 95%CI [.73, .94], p=.003), by about 17%. In both men and women, cognitive engagement significantly predicted conversion to MCI. One SD increase in the number of cognitive activities engaged was associated with lower risk of MCI by 16% in women (HR=.84, 95%CI [.71, .98], p=.028) and 21% in men (HR=.79, 95%CI [.68, .92], p=.002). Education and occupation were not associated with MCI in either gender. **Conclusion:** Ongoing engagement in cognitively stimulating activities may be a better predictor of conversion to MCI than premorbid intelligence for both men and women.

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## Rapid-Motion-Track: Markerless Tracking of Fast Human Motion with Deep Learning

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**Background**: Accurate measurement of human movements is important for clinical and research assessments relevant to ageing (e.g., measuring finger tapping and tremor in Parkinson's disease). Video technologies called 'computer vision' promise to provide more accurate and objective measures of movement than human judgment alone using a computer camera. However, current state-of-the-art tools, such as DeepLabCut (DLC), fail to accurately track the fastest range of human movements (such as tremor and finger tapping) especially when using webcams or laptop cameras (that have relatively low frame rates). This limits the use of computer vision technologies in clinical and research settings. **Objective**: To develop a new computer vision system which can track fast human movements and extract accurate and valid movement features even when low frame rate cameras are used. Method: We have developed a new deep learning-based system, Rapid-Motion-Track (RMT). We applied RMT to finger tapping, a well-validated test of motor control that is one of the most challenging human motions to track with computer vision due to the small keypoints of digits and the high velocities that are generated. We recorded 160 finger tapping assessments simultaneously with a standard 2D laptop camera (30 frames/sec) and compared this to the gold standard high-speed wearable sensor-based 3D motion tracking Optotrak system (250 frames/sec). Results: Movement features (e.g., speed, rhythm, amplitude) measured with the RMT system from videos collected by a standard 2D laptop camera (30 frames/sec) exhibited very high concurrent validity with the gold standard measurements (97.3% of RMT measures were within +/-0.5Hz of the Optotrak measures), and outperformed DLC and other advanced computer vision tools (88.2% of DLC measures were within +/-0.5Hz of the gold standard measures). Conclusion: Our new RMT method provides validated finger tapping features from videos collected by a standard laptop camera. With the ubiquity of video technology in laptops and smart devices, the RMT method holds potential to transform access and accuracy of human movement assessment for research studies related to ageing and also in clinics (via telemedicine and face to face).

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### **Correlation Exists Between Hand Movement Function and Cognitive Function**

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**Background**: Cognitive functions are widely used to screen for dementia, such as Alzheimer's disease. Recently, there is emerging evidence that coordination of hand movements (speed, rhythm, etc) may be a potential pre-clinical biomarker for Alzheimer's disease. However, currently there is a lack of research analysing the relationship between human hand movements and cognitive functions. **Objective**: To investigate the association between hand movements and cognitive functions. **Method**: Using our own developed 'TAS Test'—an online movement-based test—we collected video data on finger tapping from approximately 700 adults (older than 50, mean age 65 years) from the Island Study Linking Ageing and Neurodegenerative Disease (ISLAND) Project. We then employed our validated computer vision system (called Rapid-Motion-Track) to extract finger tapping movement features, such as tapping frequency and rhythm. We examined the association between these finger tapping features and the Paired Associates Learning (PAL) task from the Cambridge Neuropsychological Test Battery (CANTAB); PAL scores have been validated as predictive of accelerated cognitive decline. **Results**: Dual task, dominant hand and non-dominant hand finger tapping speed each showed significant negative correlations with the PAL6 score, while dual task hand finger tapping rhythm showed a significant positive correlation with the PAL6 score. **Conclusion:** This study not only reveals correlations between hand movement and cognitive function in older people, but also shows that dual-task finger tapping is more sensitive to detect subtle differences in cognitive function. The results provide motivation to explore the role of hand movement as a potential preclinical biomarker for neurodegenerative disease.

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## Dietary Inflammatory Index and Associations with Sarcopenic Symptomology in Community-dwelling Older Adults

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Background: Low-grade systemic inflammation is a key driver of muscle degeneration in older adults, and diets with pro-inflammatory properties may further contribute to loss of muscle mass, strength and function. Objective: This research aimed to explore the associations between the inflammatory potential of the diet and measures of sarcopenic symptomology in community-dwelling older adults residing within the Sunshine Coast Local Government Area. Methods: Upper (handgrip strength, HGS) and lower extremity (sit-to-stand) muscle strength, physical performance (timed-up-and-go, TUG) and appendicular skeletal muscle mass (ASM) were assessed according to the European Working Group on Sarcopenia in Older People version 2 (EWGSOP2) criteria. Multiple 24-hr dietary recalls were used to calculate the Dietary Inflammatory Index (DII), which was then used to group participants into anti- and pro-inflammatory dietary groups. Independent samples t-tests were used to compare participant characteristics and sarcopenic symptomology (muscle quantity, muscle strength and muscle performance) and functional frailty between DII groups. Multiple linear regression investigated associations between DII, muscle strength, physical performance, and muscle quantity, adjusted for age, gender, comorbidities, waist circumference and physical activity. **Results**: Adults 65-85 years (n=110, 72.1±4.7years, 76.4% female) were recruited from the Healthy Sunshine Coast evaluation project. Sarcopenia was identified in n=1 (0.9%) and multimorbidity was reported by n=18 (16.4%). DII was negatively associated with HGS ( $\beta$ =-0.157, p=0.016) and ASM ( $\beta$ =-0.176, p=0.002) which remained significant after adjusting for covariates. More participants with a pro-inflammatory DII score had low muscle quantity than those with anti-inflammatory DII (3.4% vs. 6.4%, x2=4.537, p=0.043). Conclusion: In this population of community-dwelling older adults, DII was associated with less favourable muscle strength, physical performance and muscle quantity. Following a pro-inflammatory diet was associated with poorer sarcopenic symptomology, which indicates that dietary inflammatory potential is a modifiable risk factor for combating the progression of sarcopenic symptomology.

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## Person-Centredness and Leadership in Residential Aged Care

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**Background:** In recent years, against the backdrop of the growing need for quality aged care services driven by an ageing population and community expectations, person-centred care has gained in prominence, considered equivalent to high-quality care or best practice in care. **Objective:** The research aimed to gain insight into the role of leadership in building, facilitating and sustaining a person-centred approach to working with residents, in the residential aged care environment. **Method:** This qualitative research project used hermeneutic phenomenology to explore participants' lived experience (through the medium of Zoom), in two residential aged care facilities. The participants interviewed (8 residents, 9 family members, 18 staff, 2 executive managers) gave voice to different lived experiences, adding to the richness of the data and contributing to the results. **Results:** The research revealed an intertwined relationship between leadership and person-centred environment, which in turn, is fostered and supported by person-centred leadership. This leadership, while being associated with some key individual leaders, was also shared by staff, who acted upon their own agency. Being immersed in the person-centred culture, they embraced and carried out direct responsibility for the care and well-being of residents. However, the person-centredness was not limited to residents, but extended to family members and staff as well. The dynamic interplay of shared leadership and inclusive person-centredness formed the fabric of the person-centred environment – the caring community. **Conclusion:** The lessons and recommendations from this research are in congruence with the outcomes of the recent Royal Commission into Aged Care Quality and Safety and have real potential to contribute to positive change in aged care and other environments where person-centredness is the goal.

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## Understanding Stigma in the Context of Working in Aged Care

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**Background:** Stigmatising discourses continue to deter people from entering and staying in the aged-care workforce. This has major implications for the industry's capacity to deliver aged-care services. While extant research suggests that aged-care work is stigmatised, little is known about how the stigma of working in aged care is conceptualised, or the potential consequences of experiencing stigma as a worker in the aged-care context. **Objective:** This paper reports the findings of a recent systematic review, which explored how stigma associated with working in aged care is conceptualised and synthesised findings from studies that investigated relationships between the stigma of working in aged care and negative outcomes for the workforce. **Method:** In line with PRISMA guidelines, we screened peer-reviewed articles across 5 databases, to identify conceptualisations and consequences based on criteria grounded in Stigma Theory. **Results:** Fifty-nine articles contained conceptualisations and consequences of the stigma of working in aged care. Only 10 articles explicitly used the term "stigma" when conceptualising the stigma of working in aged care. An additional 49 articles conceptualised this stigma in terms of stigma processes (e.g., status loss). Findings from a deeper examination using a linguistic analysis revealed stigma associated with working in aged care work, and (3) negative emotional reactions towards working in aged care. Stigma was also associated with adverse psychological and job-related consequences with these findings stemming almost exclusively from qualitative studies. **Conclusion:** This review provides greater insight about how societal discourses surrounding the devaluation of aged care constrains the ways in which people engage with aged-care work. Recommendations for challenging the stigma of working in aged care involve shifting deep-seated negative discourse at industry and societal levels via public messaging and training.

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## Can we Teach an Old Dog New Tricks? Assessing the Feasibility of Concurrent Physical and Cognitive Training

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**Background:** Current research efforts aim to identify interventions which may prevent the onset or delay the progression of cognitive decline. Physical activity is considered a modifiable risk factor for cognitive health, given it promotes neurogenesis, angiogenesis, and the release of neurotrophic factors. Intuitively, cognitive training also benefits cognitive health, with improvements observed in the specific task and cognitive domain trained. Despite each activity independently benefiting cognition, it is unclear whether an additive effect may be obtained through the simultaneous engagement in both physical and cognitive activity. Objective: This study aimed to assess the feasibility of a concurrent physical and cognitive training intervention in adults aged over 55 years, whilst also measuring the populations tolerance to this training modality. **Method:** Thirteen adults aged 55-70 years were recruited. Mean arterial blood pressure, heart rate, cadence, and rating of perceived exertion were recorded during 30-minutes of continuous moderate-intensity stationary cycling, completed with and without simultaneously performing an incongruent Stroop task. Feasibility was evaluated through the observation of retention rates and the ability of participants to successfully engage in both protocols. Outcome measures from each intervention were then compared to demonstrate whether the addition of a cognitive task during physical activity places a notable, additional burden on participants, impacting tolerability. **Results:** Preliminary findings suggest that the addition of a cognitive task during physical exercise is feasible and well-tolerated in this population, with minimal difference observed between the objective (mean arterial blood pressure, heart rate, and cadence) and perceived (rating of perceived exertion) measures of demand between the interventions. **Conclusion**: This initial finding indicates that concurrent engagement in cognitive and physical activity is well tolerated by adults aged over 55. Further investigations are required to assess whether this training modality may provide additional benefits compared to interventions which conduct physical or cognitive exercise in isolation.

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## A Grounded Theory Study of the Experiences of Older People and Their Carers' Receiving Home Care Package Services

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The desire of older people to remain in their homes, coupled with the growing demand to support care needs of the ageing population has resulted in home care package services being an area of significant growth and reform across the aged care sector. Home care packages are subsided by the Australian Government and are designed to provide older people with funds and support to remain living in their own homes. To date, there has been little research undertaken in relation to older persons' experiences accessing the home care package system. This signifies a large gap in the knowledge within the context of consumer orientated care, the practice of placing older people at the centre of their care and decision making. The aim of this study was to explore older people and their carers' experiences of accessing and receiving home care package services. Older people were recruited in collaboration with home care package service providers across Western Australia. Semi-structured interviews were undertaken with seven older people and seven carers. The data were analysed using a grounded theory approach. The findings revealed that participants as they endeavoured to maintain living at home with the support of health and aged care services. Journeying through uncharted territory', which describes the experiences of participants as they factors: deteriorating health and functioning, floundering in the deep end of a complex bureaucratic aged care system and quandaries and emotional turmoil. The findings revealed that the service can be better designed to enhance accessibility and support to older people and their carers throughout the journey to receive home care package services by developing information provision options to assist with navigating the system. This information will assist policy makers and service providers to strengthen and develop policy and practice.

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## The Acute Effect of Exercise Intensity and Mode on Circulating Irisin Concentrations

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**Objectives:** Irisin was first identified as a hormone (myokine) released from contracting muscle to stimulate the browning of adipose tissue. More recently, studies suggest the release of irisin may also mediate the beneficial effects of exercise on dementia. However, variability in acute study outcomes exist, that may be explained by variation in exercise intensities as well as a potential favouring of resistance over endurance exercise. A deeper understanding of how intensity and mode effects the transient response of irisin to exercise will inform the development of optimal exercise prescriptions that may potentially slow the development of dementia. **Methods**: Thirty-two healthy older adults aged over 65 years, completed a randomised cross over design of four single bouts of exercise, consisting of: lower intensity resistance exercise (Low-RE), higher-intensity resistance exercise (High-RE), lower intensity endurance exercise (Low-EE) and higher-intensity endurance exercise (High-EE), as well as an equivalent rested control period. Venous blood was sampled pre- and 0-, 30-, and 60-minutes post-exercise for later analysis of irisin. Body composition, peak aerobic capacity (VO<sub>2max</sub>), maximum strength recorded for a single repetition on each resistance exercise (1RM) and muscle quality were assessed prior to exercise over endurance. Additionally, we hypothesise that positive correlations will be observed between, percentage lean mass, fitness, 1RM, muscle quality and peak irisin post-exercise. **Implications:** Understanding the response of irisin to variations in intensity and mode will inform the development of optimal exercise prescription trials aimed at slowing the onset of dementia.

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## A Group-Based Seniors Exercise Park Program for Older Adults with Mild Balance Dysfunction

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**Background:** Engaging in multi-modal physical activity is important to optimise health and physical function. Seniors Exercise Parks (i.e., outdoor exercise equipment built for older adults) are one novel approach to promoting multi-modal physical activity. Older adults with mild balance dysfunction are at risk of declining balance and/or injurious falls and could benefit from an early physical activity intervention. **Objective:** To evaluate the feasibility of a Seniors Exercise Park program among older adults with mild balance dysfunction. **Method:** Participants (aged 65 years or over) with mild balance dysfunction underwent 18 weeks of training where supervision was gradually reduced followed by six weeks of unsupervised training at the Seniors Exercise Park. Feasibility was assessed at baseline, after 18 and 24 weeks. **Results:** Thirty-six participants completed the 18 week intervention, of these 32 were evaluated again after 24 weeks. Although 14.3% of sessions were cancelled due to poor weather, all supervised sessions were completed within 18 weeks. Median adherence to supervised training was high (90.9%), and unsupervised, independent practice was low (26.3%). No adverse effects or falls occurred. All physical performance (e.g., balance, lower body strength, and mobility), psychosocial health outcomes (e.g., mental wellbeing) and quality of life improved significantly at 18 and 24 weeks. Some participants (i.e., pool and/or home) during weeks 19 to 24. Participants perceived health benefits and were satisfied with the Seniors Exercise Park program. **Conclusion:** The Seniors Exercise Park program, which transitioned to unsupervised, independent practice was feasible, safe, and improved health outcomes in older adults with benefits and were satisfied with the Seniors Exercise Park program.

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#### Development of Interprofessional Collaboration and Oral Care Protocol to Improve Nursing Oral Care Practice for Caredependent Older Adults in the Community

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**Background:** Oral care is important for maintaining general health in care-dependent older adults (OAs) and can prevent aspiration pneumonia by improving oral hygiene and function. However, oral care is one of the most neglected nursing practices due to a lack of oral care protocols, efficient training, and awareness of the benefits for OAs. **Objective**: As part of our overall goal of improving nursing oral care for OAs, we established an interprofessional collaboration (IPC) between dental professionals and nursing staff from a community health care provider to co-develop evidenced-based oral care training and protocols. This study aimed to determine whether these protocols could reduce barriers to nursing oral care by increasing the knowledge, confidence and practical skills of nursing staff. **Methods**: Mixed method convergent design using a pre/post-training survey and a focus group was employed to evaluate the knowledge, attitude, and confidence of nursing staff in oral care delivery to OAs following oral care protocol training. Training consists of two modules; 1. Oral health for life, 2. Nursing oral health assessment. **Results:** The survey and focus group results showed that nursing staff significantly improved their knowledge, but not attitude and confidence, of oral care provision. Nursing staff were motivated to integrate oral care into their nursing practice, but lacked confidence in assessing oral health and delivering oral care for clients with complex needs. **Conclusion:** Nursing oral health care delivery based on locally approved oral care protocols with IPC is a key to improve the oral health of OAs. Here we found that while oral care training with IPC gave some improvement in nursing staff or nursing staff, and the use of oral care champions.

# Giving a Voice to Culturally and Linguistically Diverse Older Adults: Community Consultation about the Design and Implementation of an Online Survey in the CogSCAN Study

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Background: Older adults from culturally and linguistically diverse (CALD) backgrounds are underrepresented in, and often excluded from, dementia research. Participatory research approaches such as community consultation have been shown to improve engagement and subsequent social awareness in research to address health disparities in underserved communities. **Objective:** We introduced a Community Working Group as an ongoing, small-scale approach to community consultation when recruiting a new sample of older CALD adults within an ongoing study. The aim of the working group was to involve and engage older CALD community members in the design and implementation of an online survey validation of the CogSCAN Languages and Acculturation Questionnaire. Methods: Stage One (Online Focus Group) and Stage Two (Preliminary Report and Feedback) are complete: Stage Three (Face-to-face Workshop) will be conducted in early 2023. We invited seven previous CogSCAN Study participants who reported speaking a language other than English. Four individuals were available and consented to participate. Working group members provided input on research priorities and design in response to structured questions during Stage One. Key themes were summarised and circulated for further feedback during Stage Two. Stage Three will involve discussion of survey results and interactive development of lay summaries. Results: Key recommendations included highlighting that survey responses were anonymous and clearly describing the purpose and motivations of the research in culturally-informed lay terms. These recommendations served to improve current study procedures and will provide useful guidelines to inform design and development of future studies of cognition that include older CALD adults. **Conclusions:** Participatory research approaches are not commonplace in ageing research studies, even less so in studies that include diverse communities. They are especially important to achieve more culturally appropriate study designs and address health disparities in dementia research by improving community engagement and awareness of the research process in its entirety.

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### Physiotherapy Students are Underprepared to Work with People Living with Dementia: A Qualitative Study

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**Background:** Dementia is a major cause of disability, and physiotherapists play a vital role in the care of people with this condition. Entry-toprofessional practice physiotherapy students have been found to be 'somewhat confident' in working with this population, however comprehensive data about their practice experiences, their preparedness to care for people living with dementia and any educational gaps have not been previously reported. **Objective:** The objectives were to explore 1) What are physiotherapy students' experiences in caring for people who have dementia? 2) How prepared are students to work with people who have dementia upon graduation? 3) Are there areas where students require further education regarding dementia, and how would this be provided? **Methods:** This was a qualitative study using an interpretive description approach. Participants were 17 physiotherapy students from entry-to-professional practice education programs in three Victorian universities, in their final year of study, having completed at least 15 weeks of clinical placements. Students participated in semi-structured interviews. Thematic analysis was undertaken, with themes/subthemes derived and a qualitative thematic framework generated. **Results:** The overarching theme was that students' experience of providing care for people with dementia was overwhelming. The three sub-themes were: 1) students experience significant challenges when working with people with dementia, 2) students experience a range of emotions when working with people with dementia, and 3) the quality of dementia learning experiences during entry-to-professional practice training was perceived by students as mostly inadequate. Students described the importance of supervisors during clinical placements, and suggested incorporating 'real-life' scenario classroom training to assist them to learn to manage the challenging symptoms of dementia. **Conclusions:** Physiotherapy students believe that entry-to-practice dementia education is currently insufficient. T

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### High Polygenic Risk Score for Exceptional Longevity is Associated with a Healthy Metabolic Profile

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**Background:** Healthy metabolic measures in humans are associated with longevity. Dysregulation leads to metabolic syndrome (MetS) and negative health outcomes. Recent exceptional longevity (EL) genome-wide association studies have facilitated estimation of an individual's polygenic risk score (PRS) for EL. **Objective:** This paper tested the hypothesis that individuals with high ELPRS have a low prevalence of MetS. This research is important to understand metabolic pathways and their involvement in healthy ageing. **Method:** Participants were from five cohorts of middle-aged to older adults. The primary analyses were performed in the UK Biobank (UKBB) (n = 407800, 40-69 years). Replication analyses were undertaken using three Australian studies: Hunter Community Study (n = 2122, 55-85 years), Older Australian Twins Study (n = 539, 65-90 years), Sydney Memory and Ageing Study (n = 925, 70-90 years), as well as the Swedish Gothenburg H70 Birth Cohort Studies (n = 2273, 70-93 years). MetS was defined using established criteria. ELPRS were generated using a Python package for PRS (continuous shrinkage). Regressions and meta-analyses were performed with ELPRS and MetS and its components. **Results:** Generally, MetS prevalence (22-30%) was higher in the older cohorts. In the UKBB, high EL polygenic risk was associated with lower MetS prevalence (OR = 0.94, p = 1.84 x 10<sup>-42</sup>) and its components (p < 2.30 x 10<sup>-8</sup>). In general, the results were in the expected direction in the replication cohorts, with Sydney MAS showing nominal significance (OR = 0.81, p = 0.038). Meta-analyses of the replication cohorts showed nominal associations with MetS (p = 0.028) and 3 MetS components (p < 0.05). **Conclusion:** This work suggests individuals with a high polygenic risk for EL have a healthy metabolic profile promoting longevity. Unravelling the function of longevity variants may assist understanding the underlying biological mechanisms contributing to MetS and health span.

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## We Know we Don't Want to Leave, But What do we Really Know About Ageing in Place?

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The majority of older adults hope to avoid residential aged care and to remain in their own home or community while they age, a practice commonly referred to as ageing in place. This is strongly supported by governments, who see it as a cost-effective alternative to problems associated with residential aged care. However, little research has directly explored the expectations and experiences of ageing in place in Australia. We conducted a scoping review looking at the reality of ageing in place in Australia and New Zealand, which revealed substantial gaps in the literature. Indeed, there are few empirical papers looking at ageing in place and its relationship to ageing well, life satisfaction, quality of life, and/or mental health. Further, research has rarely acknowledged the diversity of our ageing population. Older adults including Māori and First Nations peoples, those from multicultural communities, and those identifying as LGBTQI+ are under-represented in the ageing in place literature. This is concerning as individuals from these populations can experience effects of ageing earlier and report a particularly strong desire to avoid residential aged care. Additionally, the research focus has almost exclusively been on positive aspects of ageing in place. Negative experiences were rarely examined, a result of the way studies are conducted and, possibly, of the satisfaction paradox, where individuals adapt subjectively to circumstances they feel powerless to change. A clear finding of our review was that we should not consider ageing in place as a "one size fits all" solution. Further research into the realities of older adults' experiences and expectations of ageing in place is needed and this research should consider the diversity of our ageing population if we are to ensure that future aged care initiatives and policies are well informed and evidence based.

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## Investigating the Association of Upper Limb Motor Function with Cognitive Impairment

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Background: Dementia is one of the greatest health challenges of this century. An intervention early in the disease course of dementia may offer a chance to delay or stop the neurodegenerative process. Motor function is a potential biomarker for early stages of dementia. Evidence shows a strong association between walking measures and cognition, but detailed gait analysis is not readily available and imposes costs and falls risk. There is emerging evidence suggesting associations between hand motor function and cognition. As tests can be performed seated using standard computer equipment, hand function measures may provide a viable population-level motor biomarker in dementia investigations. Objective: A pilot study to examine the association between hand motor function and cognitive diagnosis. Method: Participants were recruited from the ISLAND Cognition Clinic. Cognitive status of participants (dementia, Mild Cognitive Impairment, or cognitively normal) was determined based on consensus diagnosis using comprehensive clinical and neuropsychological examinations. Participants were video-recorded while performing self-paced, and fast-paced finger-tapping (FT) tasks. FT frequencies (number of taps/minute) were extracted from the videos using computer vision algorithms. FT reserve, the ability to increase FT frequency when necessary, was calculated as fast-paced FT frequency - self-paced FT frequency. We investigated correlations between cognitive diagnosis and FT measures. Results: When FT measures were adjusted for age, sex and education years, there was a trend for lower self- and fast-paced FT frequencies with greater cognitive impairment but did not reach statistical significance. FT reserve was not associated with cognitive diagnosis. Conclusion: The results are inconclusive, requiring further investigations in a larger sample size and potentially involving different hand motor functions. This study is among the first to analyse the association between FT measures and cognitive diagnosis using a technology-based motor test. The design and methods used show potential new ways to examine motor function and cognition.

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## Age and Rumination Moderate the Longitudinal Associations of Awareness of Age-related Change with Depressive and Anxiety Symptoms

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Background: The concept of awareness of age-related change (AARC) captures the extent to which people become aware of and attribute to ageing the changes they notice in their behaviour, level of performance, or way of experiencing life. Individuals reporting higher awareness of agerelated gains (AARC-gains) and lower awareness of age-related losses (AARC-losses) generally have better health and well-being. However, it is unclear whether lower AARC-gains and AARC-losses are risk factors for depressive and anxiety symptoms both at cross-sectional and longitudinal level. It is also unknown whether these associations vary across age and according to rumination levels. Objective: We explored whether AARCgains and AARC-losses at baseline predict depressive and anxiety symptoms at one-year follow-up, and whether age group (middle age, early old age, old age), rumination, and its components (brooding, depression-related rumination, and reflection) moderate the associations of AARC-gains and AARC-losses at baseline with one-year follow-up depressive and anxiety symptoms. Methods: Participants (N=3386; mean age= 66.0, SD= 6.93) completed measures of AARC-gains and AARC-losses (AARC-10 SF), rumination (Ruminative Response Scale), depressive symptoms (Patient Health Questionnaire 9-item version), and anxiety symptoms (Generalised Anxiety Disorder 7-item Scale) in 2019 (baseline) and 2020 (follow-up), and lifetime diagnosis of depression and anxiety (self-reported diagnosis). Regression models and tests of interaction were used. **Results:** Those with lower AARC-gains and higher AARC-losses reported more depressive and anxiety symptoms at follow-up. The associations between lower AARC-gains and more depressive symptoms and between higher AARC-losses and more anxiety symptoms were strongest in old age. Rumination and its components (brooding, depression-related rumination, and reflection) strengthen the associations of lower AARC-gains and higher AARC-losses with more depressive symptoms at follow-up. Rumination and its components strengthen the association of higher AARClosses with more anxiety symptoms at follow-up. Conclusions: Experiencing many age-related losses and few age-related gains may place individuals at risk of developing poor mental health, especially among those in old age and with a tendency to ruminate.

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### The Association Between Transport-related Walking and Disability Free Survival in Older Adults: A Cohort Study

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**Background**: Incorporating walking for transport helps boost travel-related physical activity and promote healthy ageing; however, less is known about its impact on years lived free of disability among older adults. **Objective:** This study aims to explore the association between transport-related walking and disability free survival [DFS] among community dwelling adults aged 70 years and over. **Method:** A prospective cohort of 11,705 Australian adults (mean age=75.1 years, 53.2% females), enrolled in the ASPirin in Reducing Events in the Elderly [ASPREE] clinical trial. The exposure of transport walking was self-reported, and participants were asked how often they walked (outside the home) "to get around". Weekly use was rated on a 5-point scale ranging from "1= never, 2= rarely, 3= once a week 4= more than once a week and 5=every day". DFS was derived from a composite of the adjudicated study endpoints of death, dementia, or persistent physical disability. Cox proportional-hazard models (hazard ratios [HR] and 95% confidence intervals [CI]) were used to determine the association between transport-related walking and DFS, adjusting for age, gender, education, living status, household income, remoteness, area level deprivation, alcohol consumption, smoking status, body mass index, dyslipidaemia, diabetes, hypertension, and depression. **Results**: After 6.4 median years (IQR: 5.4-7.8) of follow-up, 13.2% older adults reached the composite endpoint of death, dementia, or disability (absence of DFS). Compared to older adults reporting no engagement in walking for transport, the risk of reaching the composite endpoint was lower among older adults engaging in transport-walking rarely/once a week (HR (95%CI) 0.73 (0.56-0.94), p=0.014), more than once a week (0.64 (0.50-0.83), p=0.001) or everyday (0.62 (0.48-0.80), p<0.001). **Conclusion**: Incorporating any walking as a mode of transport could help improve DFS. However, more walking for transport seems to be associated with greater health benefits among older adults.

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### **Co-creating Social Engagement Technologies with Older Australians**

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This paper explores the design of social engagement technologies for later life, discussing two projects that support the development of this design space. In responding to the ambiguity and lack of nuance around the creation of social engagement technologies with older adults, this paper centres on collaborative interdisciplinary projects that consider the implications of these technologies. Considering the co-constitution of ageing and technology model from a design perspective, this paper details research that probes the production of imagery of later life and focuses on the cocreation of social engagement technologies in the uncertain and emergent context of the COVID-19 pandemic, and reports on the findings of two projects. The first, a cultural probe study, saw older Australians capture the realities of learning and adapting to technology in later life, detailing social dynamics and the pressures of technology on them. Through examining this method, participants describe the benefits and limitations of this thought provoking and reflective task in forming images of their ageing. These insights informed the second project, a location-based game with older pet owners and their communities. Documenting the role of animal companionship in healthy ageing, a process of co-creating gameplay saw players re-engage with their community and local places post-lockdowns. In reflecting on the tactful and sensitive approach to such collaborations, this project identifies the role of animals and these social spaces in engaging older adults. These projects serve to support an understanding of how these technologies can act as platforms that connect older adults to their social worlds and offer a variety of means for social participation. responding to the digital literacy of older adults and their preferences for social interaction. In framing these insights and how they inform our collaborations with older adults and their communities, this paper describes the formation of a space for designers to engage with older adults and their communities. Here, we detail ways of understanding and navigating this space, the materials that inform it, an agenda for creating social engagement technologies with older adults.

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### Internationally Qualified Nurses Transitioning to, and Working in the Aged Care Sector of Australia

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**Background:** Australian residential aged care settings are facing a workforce crisis as they struggle to meet demands for skilled staff. The sector has seen an increased reliance on Internationally Qualified Nurses (IQNs) to fill vacancies. IQN comprise of up to 40% of the aged care sector, more than double that of acute care settings. Despite the high proportion of IQNs in the aged care workforce, little is known about their experiences transitioning to and working in the sector. A scoping review was conducted to explore what is known regarding the experiences of IQNs and challenges encountered, with a particular focus on IQNs in aged care who come from culturally and linguistically diverse (CALD) backgrounds. **Methods**: Electronic databases including CINAHL, MEDLINE (Ovid) and PSychINFO were searched for studies published between 2010-2021 that explored experiences of IQNs in aged care settings. Twenty-two studies met the inclusion criteria and were included in our analysis. **Findings:** Preliminary findings demonstrate that transition to aged care is a challenging period as IQNs encounter numerous stresses and sometimes unfamiliar models of care. Thematic analysis of eligible studies identified three main aged care specific challenges, including: i) cultural unfamiliarity and shock; ii) perceptions of aged care as 'dirty work'; and iii) stresses related to dementia and palliative care. IQNs also face additional challenges including Australia, yet there is a scarcity of research specifically exploring experiences and challenges within the aged care context, particularly of IQNs from CALD backgrounds. There is a notable absence of Australian studies. Further research is needed to inform recommendations and interventions that might strengthen recruitment, retention, and support for this valuable workforce.

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### "How Much do you Want to Improve After Treatment?" A Qualitative Study Using Nominal Group Technique to Determine the 'Minimal Clinically Important Change' of Knee Flexion in People with Knee Osteoarthritis

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People with knee osteoarthritis (OA) commonly complain of knee joint stiffness and limitation of knee flexion. Since conservative treatments, e.g. physiotherapy and exercises, may aim to improve limited knee flexion, it is important to know whether the treatment results in a clinically important improvement. Minimal clinically important change (MCIC) is defined as the minimum amount of improvement of an outcome measure that the patient perceives as important after treatment. This study aimed to determine estimates of MCIC of knee flexion in people with knee OA after conservative treatment. To determine MCIC for knee flexion, nominal group technique discussions were conducted with people with knee OA, clinicians and researchers. The values were estimated in each group based on ≥80% agreement on estimates within three rounds of discussion. Qualitative data behind these estimates were analysed using NVivo software version 12. Five group discussions including a total of 16 people with knee OA (2 groups), 16 clinicians (2 groups), and 12 researchers (1 group) were conducted. Consensus on estimates of MCIC for knee flexion (considering 3 months of conservative treatment) ranged from 3° to 10° by people with knee OA and 10° by clinicians, and 10° to 15° by researchers respectively. However, all the groups agreed that these estimates would alter according to patient factors such as baseline flexion measurement, functional level, time duration of the restriction, level of optimism, and previous experience of improvement. This study recommends that these MCIC estimates can be used to evaluate treatment efficacy, however, these values should be adjusted accordingly to the patient factors.

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#### Barriers to Effective Service Responses to the Abuse of Older People: Evidence from Western Australia

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The abuse and mistreatment of older people (elder abuse) is a harmful and complex social phenomenon that entails a wide range of different behaviours and challenging interpersonal relationships. Reflecting this complexity, effective service responses may involve many different professionals from multiple relevant sectors working together over an extended period, including various health professionals, social workers, legal and financial professionals, policing, guardianship, advocacy, mediation and/or care services. This paper presents findings from a recent study commissioned by the Western Australian Department of Communities that consulted professionals working in all of these relevant sectors. This research forms part of Priority Area 4: Data and Evidence of the WA Strategy to Respond to the Abuse of Older People 2019-2029 and findings are expected to inform future policy decisions. Data from interviews and focus group participants (n=83) and an online survey (n=674) demonstrates that barriers to responding to abuse exist at the individual (e.g. training and knowledge), institutional (e.g. reporting and referring pathways) and societal (e.g. ageism and low awareness of abuse) levels. Some barriers, such as the older person's lack of confidence to take action to limit or stop the abuse they experience, are consistently reported by professionals from all sectors. However, analysis also shows variations in both the kinds of barriers encountered and in the suggested approaches to address and overcome barriers in service delivery. These findings will support the development of broad intersectoral initiatives to improve service responses but importantly will also inform targeted change for professionals and service providers facing barriers specific to their sector.

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### **Understanding Leisure in Residential Aged Care**

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**Background:** Leisure provision in Australian residential aged care is mandated through the Aged Care Quality Standards, however, little is known about the nature of leisure or how it is undertaken. Research involving leisure workers has tended to focus on novel interventions trialled by researchers who are specialists in their therapeutic field and evaluated against what is usual practice, with little attention to elucidating this practice. Moreover, the occupational role of 'leisure worker' has struggled for recognition in Australia and has low visibility in literature that relates to aged care workers. **Objective:** This study aimed to explore how leisure and its enactment is understood in residential aged care in Australia. **Method:** This study used grounded theory methodology. Data were derived from semi-structured interviews with 18 leisure workers, who may be best placed to provide insights on how leisure is constructed in residential aged care. Data were subjected to coding and constant comparative analysis. **Results:** Findings are presented in the form of concepts generated from the data, and substantive theory developed from these, that portray leisure as complex in nature, and its enactment as skilled work. The concepts portray leisure as having multiple foci, purposes and processes. The Leisure Theory of Connectivity with its three key categories: *familiarity, empathy* and *holism,* and core category *connection,* encapsulate understandings of leisure elucidated within this study. **Conclusion:** The findings of this research relate to literature from the fields of health and social care. This is important work because it contributes towards making leisure in residential aged care visible, and has the potential to further the development of this field. This research may be used to shape the curricula of courses that train leisure workers and as a foundation for further research. Furthermore, it contributes towards raising the profile of a practice that influences how life is experienced by those livin

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## Improving End of Life Care for Residents of Residential Aged Care Facilities

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**Background:** Care demands within Australia's Residential Aged Care Facilities (RACFs) are set to double by 2040. The Royal Commission into Aged Care Quality and Safety made it clear that substandard care in RACFs was unacceptable as was the inability to measure the extent of this substandard care. **Objective:** This need for change provided the impetus to focus on improving quality of end-of-life care (EoLC) for residents in RACFs in the Brisbane area. **Method:** The study was a concurrent single-phase embedded explanatory mixed methods design. This program took a multi-modal education and mentorship approach, working with specialist palliative care nurses in-reaching into facilities. **Results:** Twenty-eight RACFs participated in the project, representing 31.1% of RACFs within the catchment. Participation was high, with 521 RACF clinical staff completing education activities. In total 543 EoLC audits were completed and 58 bereaved family or friends completed EoLC satisfaction surveys. The project resulted in improved clinical outcomes, such as symptom management at end of life (p=.002). There was an increasingly educated workforce post-intervention, with nurses reporting an increase in EoLC knowledge and skill. This impacted resident outcomes, with the documentation of EoLC preferences increasing post-intervention (p=.05). Further, residents' preferences regarding place of death were more likely to be followed (p=.04). There was also a significant reduction in the rates of unwanted/unnecessary hospital admissions (p=.001). Bereaved respondents reported a high-level of satisfaction with most components of EoLC. **Conclusion:** EoLC outcomes for residents of participating facilities have significantly improved throughout the project; service level activities have created a supportive environment, and the workforce's knowledge of evidence based EoLC has improved. The initiative has had a positive impact on residents receiving EoLC in the place of their choosing.

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### Aged and Health Care Service Utilisation by Older Australians Receiving Home Care Packages

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**Objectives:** To examine the (1) characteristics of the cohort of individuals living at home with Home Care Packages (HCPs) in 2016, (2) their access to other aged care services after HCPs commencement, and (3) their hospital and ambulance service utilisation. **Method:** This is a cross-sectional study was conducted using integrated aged care and health care data contained within the National Historical Cohort of the Registry of Senior Australians. The study included people who accessed HCPs between 01/01/2016 and 31/12/2016. The access to permanent residential aged care, transition care, respite care, hospital and ambulance services among Australian home care recipients ≥65 years old in 2016 was evaluated. Descriptive statistics were employed. **Results:** In 2016, 84,681 individuals received HCPs, of which 68.4% (N=57,942) accessed HCPs levels 1-2, 26.0% (N=22,057) accessed HCPs levels 3-4, and 5.5% (N=4,682) accessed both care levels within the year. Of the individuals receiving HCPs, 34.0% (N=27,787) started services that year and 16.7% (N=14,117) moved to permanent residential aged care, 18.4% (N=15,592) used respite care and 5.8% (N=4,937) used transition care that year. Emergency department (ED) presentations (43.6%, 95% confidence interval [CI] 43.3-44.0) were the most common hospital encounters, followed by inpatient hospitalisations for any reason (43.3%, 95%CI 42.9-43.7), and unplanned hospitalisations (38%, 95%CI 37.6-38.3). Forty-four percent (44.5%, 95%CI 43.9-45.0) of individuals televing HCPs levels 3-4 compared to those accessing HCPs levels 1-2. **Conclusions:** HCPs recipients in Australia have frequent hospitalisations, including ED presentations. Additionally, almost one in five access respite care and 16.7% transition to permanent care each year. As the population accessing HCPs is increasing, adequate support for these individuals to live well at home and avoid health events that lead to hospitalisations are necessary.

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# A Review of Nursing Career Frameworks to Develop an Age Care Specific Career Framework THENNAKOON Sachini<sup>1</sup>, STRICKLAND Karen<sup>1-3</sup>, ANG Seng Giap Marcus<sup>1</sup>, TRAYNOR Victoria<sup>1,4</sup>

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**Background:** Residential aged care facilities (RACFs) are in the midst of significant staffing shortages as never before seen. Nurses in the sector are no exception, with high turnover rates associated with burnout, limited career progression, and poor job satisfaction. Further, the growing complexities of geriatric medical conditions increase the need for gerontology competent nurses in RACFs. The development of an aged care nursing career and competency framework to guide the professional development of aged care nurses could help to retain and retrain skilled aged care nurses. **Objectives:** This review aims to identify existing nursing career frameworks, theories, models, enablers, and barriers that guide the development of nursing career frameworks and identify specific gerontology competencies required by aged care nurses. **Method:** This review will follow the five-step integrative review method described by Whittemore and Knafl (2005). Searches of nursing-related electronic databases will be conducted to identify peer-reviewed journal articles, and a grey literature search will be conducted to identify existing gerontology competency frameworks. Two or more independent reviewers will screen articles against the inclusion criteria and any disagreements will be appraised using a mixed method critical appraisal tool. Data will be extracted, thematically analysed and presented as a narrative summary. **Outcomes:** The outcomes of this review will be an analysis of the theories and research methodologies used to develop the existing nursing career frameworks and a synthesis of evidence on gerontology competencies which will inform the development of the proposed gerontology career framework. Review outcomes will also inform future research and it will be the first phase of a research project that aims to develop a gerontology nursing career and competency framework for the Australian context.

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# Everyday Care with Digital, Networked Technologies: Complex, Contradictory, and Compromised

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Internet enabled technologies such as smart phones are widely accessible in Aotearoa New Zealand. Approximately 60% of people aged over 75 and 85% of people aged between 66 and 75 currently have access to the internet. As internet enabled devices become widespread, they are increasingly implicated in the ways older people enact and receive care. Drawing on science and technology studies literature, care is understood as interactions between human and non-humans that contribute toward living as well as is possible. This body of research points to the ways that digital technologies are active in co-creating the shapes and forms of contemporary care practices. This paper draws upon two data sets: (i) 15 qualitative interviews with people aged between 70 and 85, and (ii) marketing literature and government documents related to technologies designed for older people. Both data sets are analysed to understand the realities and imaginaries of everyday care with networked, digital technological interventions achieve health and independence) and connectedness (where technological interventions mitigate social isolation and loneliness). Indeed, interview participants describe ways technologies foster feelings of control, autonomy and a sense of 'care at a distance'. However, these technologies are also incorporated into the lives of older people in ways that do not always reflect their needs and priorities. Digital technologies can individualise the responsibility for care. Inscribed in these technologies are patterns of 'ideal use' which structure how participants engage with them, in ways that both enable and constrain the achievement of care. These findings add complexity to dominant understandings of the role technology in achieving well-being for older people.

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# TAS Test-BRAIN Online Keyboard Tapping Task Associates with Cognitive Performance in Community and Clinical Cohorts of Older Adults

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Background: Subtle impairment in movement (motor) function occurs years before, and during, cognitive decline. Gait changes are known to occur about ten years before dementia manifests, but few studies have assessed whether hand movement characteristics predict cognitive performance. Objectives: To examine if hand movements measured using an alternate key tapping test (i) associate with cognitive performance in specific domains (episodic memory, executive function and working memory) and (ii) distinguish cognitive impairment. Methods: 1373 community participants (age 66.1 ± 7.6 years; 73% female) recruited from Tasmania completed online TAS Test-BRAIN keyboard tapping tasks and CANTAB cognitive tests. Tapping frequency, variability, key press duration and inaccuracy score were extracted from tapping data. Executive function, working and episodic memory measures were extracted from CANTAB. Generalised linear models examined associations between hand movements and cognitive test performance, adjusted for age, gender, level of education, anxiety and depression. Akaike information criterion (AIC) was used to compare model fits between the model with cofounders and tapping features and the model with cofounders only to estimate different cognitive domains separately. Dominant and non-dominant hand tapping performance was included as a factor. TAS Test-BRAIN was also assessed in a cohort (n=101) with consensus diagnosis of cognitive impairment (dementia or mild cognitive impairment) (n=45) and in people with normal cognition (n=56). Results: Tapping features particularly in the non-dominant hand contributed to the estimation of episodic memory performance. However, tapping features did not minimise prediction error of estimating executive function and working memory compared to the model with confounders only. In the clinic cohort, keyboard tapping measures distinguished cognitive impairment from cognitively normal groups. **Conclusions:** Simple online hand movement tests may help identify people with early stages of cognitive decline. This provides potential for population-level screening tests for people with access to a computer with a keyboard.

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### Subjective Cognitive Decline, Psychological Resources, and Wellbeing in Older Adults

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Background and Objectives: Many older adults experience an awareness of real and/or perceived changes in their cognitive abilities, such as memory complaints, forgetfulness, and heightened awareness of cognitive concerns - otherwise known as Subjective Cognitive Decline (SCD). While prior research has most commonly focussed on SCD as a pre-curser to dementia, it is also important to consider the implications of SCD for more general health and wellbeing as part of normal ageing. The aim of the present study was to examine associations of SCD with psychological wellbeing (satisfaction of autonomy, competence, and relatedness needs) in community-dwelling older adults. I further examined whether selfcompassion and awareness of age-related gains served a protective function, buffering negative associations of SCD with wellbeing. Methods: An online survey was completed by 263 participants from the United States aged 50-83. Multiple regression was used to examine the associations of SCD with psychological wellbeing and to test possible moderating effects of self-compassion and awareness of age-related gains. Results: SCD was negatively associated with the satisfaction of competence needs, however this association as weaker among those with higher selfcompassion, supporting a buffering effect. Contrary to expectations, a negative association of SCD with satisfaction of relatedness needs was stronger among those with higher self-compassion. No moderating effects of awareness of age-related gains were found. Conclusions: These findings suggest SCD may directly undermine psychological wellbeing. However, mixed findings regarding self-compassion and awareness of agerelated gains suggest that the benefits of these psychological resources may be context dependent. Understanding the appropriate psychological resources to adopt when older adults are aware of particular functional losses is important for how adults accommodate real and/or perceived changes while still maintaining a high level of wellbeing. I suggest these resources may still offer important benefits for older adult wellbeing and are a worthwhile avenue for future research.

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### Ageing Actively, Ageing Inclusively: Barriers and Facilitators to Minority Older Adults' Participation in Active Ageing Centres

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A rapidly ageing population in Singapore has necessitated nation-wide policy shifts to support "ageing-in-place". This directive has seen an increase in social-recreational Active Ageing Centres (AACs) located within residential neighbourhoods, aimed to provide older adults with opportunities to age healthily. Yet, existing observations have pointed to a poor uptake of mainstream community-based senior activities among ethnic minorities, who simultaneously suffer disproportionately from health and mental health risks. These trends raise concerns over the inclusivity of current active ageing programmes. This qualitative study utilises semi-structured interviews with 10 Chinese and 5 non-Chinese eldercare staff and observations from the author's ethnography with one AAC to investigate the barriers and facilitators to ethnic minority older adults' participation in AAC programmes. Four themes were identified: (i) role of multicultural and multilingual programming, (ii) staff cultural competence and commitment towards inclusion, (iii) neighbourhood characteristics and centre culture, and (iv) ageing policy limitations. While staff noted the value of linguistic diversity in their programmes and ethnic diversity among their staff members, staff also noted that it was more important to develop a culturally competent professional habitus, in order for them to negotiate the everyday interactions of cultural difference within their multi-ethnic neighbourhoods. However, staff also indicated broader attitudinal and resource constraints as obstacles towards further inclusive practices. As ageing-in-place policies continue to expand, this study's findings inform the need for policymakers to be conscious of the oft-overlooked linguistic and socio-cultural needs of ethnic minority seniors, and for the promotion of stronger cultural competence among eldercare staff.

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# The Association Between Dairy Intake and Disability Free Survival in Community Dwelling Older Adults: The Results of the ASPREE Longitudinal Study of Older Persons (ALSOP)

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**Background:** High intake of dairy foods has been found to lower fracture and frailty risk in older adults, however, the association with mortality and disability free survival (DFS) is less clear. **Objective:** To examine the association of total dairy intake and subtypes of dairy intake with DFS in older adults. **Methods:** Prospective cohort study of 9,949 community-dwelling adults aged ≥70 years, participants in the ASPirin in Reducing Events in the Elderly (ASPREE) Longitudinal Study of Older Persons (ALSOP). The outcome DFS was a composite of all-cause mortality, dementia, or persistent physical disability. Total dairy intake was a composite of self-reported intake of subtypes of dairy products, high and low-fat milk, cheese, cream, cream cheese & yoghurt (consumption frequency: *rarely/never, 1-2 times/ month, 1-2 times/ week, 3-6 times /week, several times/day*). Cox proportional hazards regression, adjusted for socio-demographic, overall protein intake, health-related and clinical covariates, assessed the association of total dairy intake and intake of subtypes with composite DFS endpoint. **Results:** There were 1011 DFS events with median follow up of 6.4 years. After covariate adjustment, no association was observed between total dairy intake and DFS. However, analysis of dairy subtypes demonstrated that compared to rarely/never consumption, daily yoghurt consumption was associated with lower risk (HR 0.79 (95%CI 0.65-0.96) of reaching the DFS composite end point, whereas consumption of full fat milk 1-2 times and 3-6 times a week was associated with a higher risk (1-2 times HR 1.52 (95%CI 1.24-1.86); 3.6 times HR 1.45 (95%CI 1.15-1.82) respectively). **Conclusion:** The results of the study indicate that, in older adults, the health effects of dairy intake may increase or decrease the risk of surviving with dementia and disability, which is related to the dairy subtypes consumed.

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## Urban Heatwaves, Age and Gendered Injustice – What's Social Work Got to Do With It?

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Older people globally are disproportionally affected by health risks related to climate change and exposure to extreme events. The increase in heatwave deaths is predicted to become one of the most devastating impacts of global heating, with heatwave deaths expected to make up the majority of future climate related mortality rates by the end of the 21<sup>st</sup> century. Cities are particularly vulnerable to heatwaves, due to the complex interaction of a growing and ageing population, the built environment, and the Urban Heat Island effect. Older women are overrepresented in heatwave mortality statistics, a consequence of deeply entrenched gender oppression, which has left older women poorer, more marginalised and with less access to lifesaving adaptation measures. This study aims to make a significant contribution to the field of ageing and social work by exploring and unearthing the lived heatwave experience of older women who live alone in Melbourne. It also explores how public cool spaces, a frequently promoted public health measure, meet the needs and opportunities for this group. Informed by an ecological feminist critical realism and using a qualitative methodology, the study will centre the voices of older women and offer a unique view on living in, through and around heat. Early preliminary findings indicate that social connectedness, access to information, transport and costly lifesaving cooling measures are central to managing and ultimately surviving a heatwave. The study will also add crucial insights and new knowledge to the ongoing evolution of a growing and much needed eco-social perspective in social work in its quest to treasure and safeguard human life on a finite planet.

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### Factors Associated with Brain Ageing in Later Life

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There is considerable variability in the rate at which we age biologically, and the brain is particularly susceptible to the effects of ageing. Through machine-learning, neuroimaging biomarkers have been developed which measure brain age, and the difference between chronological and brain age ('brain-predicted age difference', or brain-PAD), has been shown to characterise abnormal (faster rate) or resilient (slower rate) brain ageing. This paper reports findings of a recent empirical study that determined which participant characteristics predict the longitudinal change in brain-PAD. T1-weighted magnetic resonance images were acquired from 497 community-dwelling older adults ( $73.8 \pm 3.5$  years at baseline, 48% were female) at three timepoints (baseline, year 1 and year 3). Brain age was derived from whole brain volume, using a publicly available algorithm trained on an independent dataset. Linear mixed models adjusted for age, age<sup>2</sup> and sex, were used to investigate the association between a range of sociodemographic, health, mental and physical characteristics and the three year change in brain-PAD. A faster rate of brain ageing was observed in men compared in women (-0.16 [-0.31, -0.004] years difference per year, p=0.04). A better physical quality of life and verbal fluency were associated with a faster rate of brain ageing, while depression was linked to a slower rate of brain ageing, but these findings were not robust. In conclusion, our study provides consistent evidence that older men have slightly faster brain atrophy than women. While there remains a need for further prospective analyses into brain ageing in later life, this study provides evidence that may prove useful when identifying factors that could alter the trajectory of brain ageing.

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## Association of Perceived Social Isolation and Reported Barriers to Access Formal Aged Care: Findings from a National Survey

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**Background:** Little is known about how the psychosocial contexts of community-dwelling older adults influence their perceived barriers to navigating aged care services. **Objective:** To estimate the prevalence of older Australians who have an unmet need for formal home care services, and to examine the association between the psychosocial factors of older adults and their navigation barriers to home care services. **Method:** Data used for this study were from the 2018 Australian Bureau of Statistics Survey of Disability, Ageing and Carers (SDAC). We estimated the prevalence by using a subsample from SDAC of those  $\geq$ 65 years and living in households (n=9271). A smaller subsample from SDAC (n=1964) of older adults who accessed home care services was used to address the second objective. Logistic regression analyses were conducted to analyse the association between reported navigation barriers to care and perceived social isolation. We defined the older adults who have an unmet need for assistance from organised services as experiencing barriers to receiving formal home care services. The complex survey design features were reflected in the analyses. **Results:** Among older Australians living in households, around one in ten (9.7%) reported an unmet need for assistance from home care services. Of those who receive home care services, about one-third (32.4%) had an unmet need for additional services. Regression analyses showed that perceived social isolation among older adults was associated with an almost 2-fold (OR=1.95, 95%CI:1.60-2.38) increase in navigation barriers to home care services. The odds ratio (OR=1.76, 95%CI:1.43-2.16) remained statistically significant after adjusting for age, sex, education, income, English proficiency, remoteness, and disability status. **Conclusion:** Results reveal a considerable number of older Australians with unmet needs for formal home care services. Findings also suggest that social isolation is strongly associated with experiencing barriers to navigating the aged care syste

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# Effectiveness of Community Based Rehabilitation (CBR) Centres for Improving Physical Fitness for Community-dwelling Older Adults: A Systematic Review and Meta-analysis

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**Background:** The increasing ageing population has been identified as requiring a major public health focus for Asian countries. Community Based Rehabilitation (CBR) can effectively improve both mental and physical function for older people. However, no systematic reviews have evaluated the effectiveness of CBR on older adults' physical fitness. **Objective:** To synthesise the best available evidence for the effectiveness of interventions performed in CBR centres on physical fitness, for community-dwelling adults aged 60 years or older living in Asian countries. **Method:** The PRISMA guidelines for systematic reviews were followed. Four English and two Chinese electronic databases (CINAHL, Medline, Scopus and Proquest China National Knowledge Internet and Wanfang Database) were searched for randomised controlled trials (RCT) and quasi-experimental studies conducted by centres providing the CBR. Two independent reviewers screened the titles and abstracts of all identified studies and assessed the methodological quality of all eligible studies. The primary outcome was physical fitness measured by validated assessment tools. The strength of the evidence for each outcome was graded using GRADEPro. **Results:** After screening 4620 studies, 25 trials were included (14 RCTs and 11 quasi-experimental studies) with 5381 older adults (mean age = 71.53 years). Quantitative synthesis showed significant improvements in physical function measured using the Timed up and go test (MD, -1.90; 95% CI, -3.19 to -0.61; Z = 2.88, P = 0.004,  $I^2 = 0\%$ , very low GRADE evidence) and handgrip strength (MD, -1.80; 95% CI, -3.01 to -0.59; Z = 2.92, P = 0.003,  $I^2 = 12\%$ , very low GRADE evidence). **Conclusion:** CBR may improve physical function of older adults living in Asian countries, specifically functional mobility and handgrip strength. Findings are limited by the low quality of evidence. Further high quality RCTs evaluating standardised interventions are required.

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# Implementation Challenges and Impacts of the Comprehensive Care Standard in Australian Acute Care Hospitals: Protocol for a Mixed-Method Study

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**Background:** In January 2019, the Australian Commission on Safety and Quality in Health Care (ACSQHC) mandated the Comprehensive Care Standard (CCS) as an accreditation process for quality health service provision. Approaches for implementing the CCS will vary, even within a health service organisation. **Objective:** The objective of this project is to explore the implementation challenges and impacts of the introduction of the CCS on patient care and health outcomes in acute care hospitals in Australia. **Method:** The study will use a sequential mixed-method design, comprising hospital documentation review, focus groups with care professionals involved in the CCS implementation or comprehensive care delivery, patient episode of care data analysis (outcome variables include adverse events, length of stay, mortality and readmission), and surveys and interviews with patients and carers of patients aged 50 years and over (including patients with dementia) at two Australian acute care hospitals. Quantitative data will be presented using descriptive statistics. Bivariate and multivariable regression analyses will be used to explore factors associated with the outcomes. The Consolidated Framework for Implementation Research and the implementation guide developed by the ACSQHC will be used to inform the qualitative data we collect and our analytic approach. **Conclusion:** This study is novel in that it will identify important factors (including COVID 19) influencing the recent implementation of the CCS in acute care settings. This work should advance the implementation of comprehensive care in Australia and internationally and involvement of patients as key participants in designing care, in choices for their care, and in the coordination of the implementation of future standards in acute care hospital settings.

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# Self-Care Behaviours and Related Cultural Factors Among Elder Chinese Immigrants Living with Cardiovascular Disease in Western Countries: An Integrative Review

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Background: Self-care to manage cardiovascular disease poses challenges for elder Chinese immigrants in western countries who are navigating within a cross-cultural context. **Objective**: This review explored the self-care behaviours of first-generation elder Chinese immigrants with cardiovascular disease and examined culturally-related factors. **Method:** An integrative review was conducted. Seven databases (Scopus, ProQuest Health & Medicine, Medline (Ovid), Embase (Ovid), AMED (Ovid), PsycINFO and CINAHL) were systematically searched for the period 2000 to 2020, and 2041 peer-reviewed papers were screened. Six papers were retained and critiqued with the Joanna Briggs Institute critical appraisal tools, with deductive and inductive approaches applied to synthesise the findings. The PRISMA 2020 checklist informed the review reportage. **Results:** In general, elder Chinese immigrants with cardiovascular disease actively engaged in self-care regarding their cardiovascular disease, including through changing to heart-healthy diets and high adherence to western medication. Rather than Traditional Chinese Medicine, many Chinese immigrants perceived western medication as the first line to treat their heart disease. Regarding the exercise behaviours, only one study reported these elders performed exercise on a regular basis, including walking, Tai Chi and swimming. Family played a significant role in their disease decision-making and management. Although these immigrants actively and diligently sought out health-related information and resources, language and cultural barriers impeded their access to mainstream health resources. Conclusion: The scarcity of literature on self-care behaviours among first-generation Chinese immigrants with cardiovascular disease indicates the need for further research in this area. For clinical practice, development of culturally and linguistically sensitive health resources and education programs is an urgent need. A community-based heart health education approach may enhance the accessibility, utility and acceptance of western health information among these elder Chinese immigrants to further improve their disease management literacy and skills.

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# Exploring the Self-care Behaviours Among Elder Chinese Australians Living with Cardiovascular Disease: A Qualitative Enquiry

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**Background:** Self-care is crucial in reducing cardiovascular morbidity and mortality. However, it could be challenging for elder Chinese immigrants to manage their cardiovascular disease as they have to navigate a new language, culture and healthcare system in Australia. Currently, little is known about the self-care experience of Chinese Australians living with cardiovascular disease. Objective: This study aimed to identify self-care practices among first-generation Chinese Australian elders living with cardiovascular disease. Method: A gualitative descriptive design was employed. Individual semi-structured phone interviews were conducted with Chinese Australian elders with cardiovascular disease living in New South Wales and recruited via Chinese Community Centres and social media from September 2021 to May 2022. Data analysis was performed through deductive thematic analysis, guided by the theoretical framework of the middle-range Theory of Self-Care of Chronic Illness. Results: Nineteen participants were interviewed, mean age 69.6 years, 11 females. Most (n = 16) actively engaged in self-care maintenance, including adhering to medical treatments, adapting heart-healthy diets and performing regular exercise. Some (n = 6) identified language challenges in communicating with their healthcare providers and navigating the new healthcare system, but all described strategies to overcome them. When these elders actively sought health information to manage their heart disease, linguistic and cultural barriers to obtaining mainstream heart-health information meant most resorted to informal, anecdotal and mainland Chinese sources. This could potentially undermine their health literacy and self-care skills. These participants also played a positive role in self-care monitoring, recognising signs and interpreting symptoms indicative of changes in heart health and well-being. They tended towards self-directed management, principally responding to their cardiovascular symptoms by resting and self-medicating. Conclusion: Development of linguistically and culturally sensitive heart-health education is an urgent need. A community-based heart health education approach may enhance the accessibility, utility and acceptance of western health information among elder Chinese immigrants, providing consistent knowledge to improve their self-efficacy and capacity to self-care.

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# Overviews (Ask the ERA Brains Trust)

In alphabetical order (by participant author surname)

### Developing an Innovative Workability Instrument for the Ageing Workforce

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**Background:** The demographic changes in our society and workforce will require new and innovative measures to strengthen personal and organisational resources of older workers. **Objective:** To modify an existing workability instrument in order to tailor it to older worker's needs. **Method:** Focus groups with a range of different stakeholders (e.g., older workers; occupational health and safety advisors) will be conducted to identify features needing adjustment and make the appropriate changes to the workability instrument. **Results:** It is expected that changes made will reflect the contemporary requirements that older workers need to remain in the Australian workforce. **Conclusion:** Adjusting the instrument will deliver a prototype of an innovative instrument that enables the measurement of older people's workability

Key questions:

- What other research design/ methodology (e.g., Delphi study; cognitive interviews) could be helpful to improve the design and content of this instrument?
- What other criteria should be considered when evaluating this instrument in a subsequent study (e.g., feasibility, test-retest, concurrent validity)?
- In which context (e.g., workplace setting or research) do you think might be an instrument as outlined above most effective?

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### Life in Residential Aged Care: What Does it Mean?

#### FITZGERALD Jarrah

Australian Institute of Primary Care and Ageing, La Trobe University

**Background:** Making the move into a residential aged care facility (RACF) is a daunting prospect for many older adults. Considering the findings of the Royal Commission into Aged Care Quality and Safety, more needs to be understood about what such a move means for those older adults living in residential aged care and how we might best support them. **Objective:** This research aims to investigate the processes involved in moving to a RACF and the way(s) that residents develop to help adjust to life in care, focusing on the perspective of residents themselves. **Method:** A grounded theory, based on in-depth interviews and observational data, looking at life in RACFs in Victoria. **Progress:** So far, 20 residents and 3 staff have been interviewed across 3 different facilities in Victoria. I am currently in the middle stages of coding and seeking to deepen my investigation via theoretical sampling.

Key questions:

- What is the most effective way of recruiting residents/facilities for qualitative research? Given that facilities/management act as initial gatekeepers of residents, specific ideas, techniques or approaches to recruitment would be invaluable.
- Do you have any tips or techniques for conducting qualitative interviews with older adults that may be suffering from cognitive issues? While interview questions become more pointed as a grounded theory progresses, keeping older adults on track (or exploring more painful or theoretical concepts) can be difficult without asking leading questions.
- In terms of grounded theory, what are the best ways of making the leap from basic codes to a core category?

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# 'We NEED You' – Enhancing Engagement of Older People with Climate Actions

#### JONES Susanne

#### Caring Futures Institute, Flinders University

This project examines opportunities to address the barriers and facilitators in the engagement of older people in climate actions. The first phase involved a scoping review which identified that climate adaption activities were largely the focus of research involving older people, with only few programs focused on climate mitigation activities tailored for this population. The second phase of this research involves stakeholder engagement to better understand the current climate actions older people in Australia are involved in from individual and organisational perspectives. The final phase of the research may involve co-designing, developing and trialling resources and educational opportunities to support and facilitate older adult engagement in climate actions. The resources would be designed in collaboration with older people and be tailored to attract people with varied experience in climate actions, and people from diverse backgrounds and locations (metropolitan, coastal, rural). Hardcopy and digital communications and resources will be offered.

Key questions:

- What additional opportunities and/or methodologies could be employed to enhance engagement from individuals and organisations around this topic?
- What are the best strategies for maximising engagement of older people in the co-design process to ensure that there is broad representation and a range of perspectives in the process?
- What additional information and activities should be included in this research program to inform and influence policy makers?

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### Meaningful Relationships for People Experiencing Dementia-associated Behaviours in Residential Aged Care

#### **MITCHELL Janet**

Discipline of Psychiatry and Mental Health, University of New South Wales

**Background:** Meaningful relationships for people experiencing dementia-associated behaviours haven't been prioritised in residential aged care. My research aimed to identify the occurrence and factors associated with the meaningful relationships for people experiencing dementia-associated behaviours and their care partners: staff, family/close friends, other residents and visiting personnel. **Study design:** Multimethod—quantitative and qualitative—with data triangulation. **Data:** Care home characteristics—via assessments, interviews, surveys, Participant demographics; Participant relational profiles—observed and self-reported, Resident participant clinical profiles. **Findings:** Residents experiencing dementia-associated behaviours engaged in meaningful relationships evidenced by 'positive person' interactions. Contributing factors: (i) care provider executive trained in and committed to relational person-centred care (RPCC); (ii) care home management empowered to innovate; and (iii) all care partners supported and recognised e.g., sufficient time to engage with residents and each other, including socially. **Conclusion:** Quality of relationships is pivotal in dementia care. RPCC enables this via care home design and culture, and care and lifestyle delivery.

Key questions:

- Relational person-centred care and design are acknowledged as best practice. Each is associated with cost savings and addresses both quality of care and quality of life. How could I promote my and others' research in these areas to inform policy makers?
- Care home provider and care home management leadership played a critical role in the quality of care and quality of life demonstrated in my study. What steps could I take to be part of a subsequent study that would consider factors pertaining to leadership that enabled and hindered best practice care?

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# Implementation Challenges and Impacts of the Comprehensive Care Standard in Australian Acute Care Hospitals: Protocol for a Mixed-Method Study

#### **XIONG Beibei**

Centre for Health Services Research, The University of Queensland

**Background:** In January 2019, the Australian Commission on Safety and Quality in Health Care mandated the Comprehensive Care Standard (CCS) as an accreditation process for quality health service provision. **Objective:** This project will explore the implementation challenges and impacts of the introduction of the CCS on patient care and health outcomes in acute care hospitals in Australia **Method:** The study will use a sequential mixed-method design, comprising a nationwide survey and subsequent interview with care professionals and a case study with acute care hospitals. The case study will be conducted at two urban acute care hospitals in Queensland and Tasmania. In each case hospital, we will conduct hospital documentation review, focus groups with care professionals involved in the CCS implementation or comprehensive care delivery, and surveys and interviews with patients and carers of patients aged 50 years (including a subgroup of patients with dementia).

Key questions:

- The nationwide survey with care professionals is distributed through professional networks, social media, emails to public accessibly email accounts for acute care hospitals. I would be interested in hearing any suggestions regarding how best to recruit a wider national sample for my survey.
- We will have surveys and interviews with patients and carers of patients aged 50 years (including patients with dementia). Given the difficulty in working with patients with dementia, I would be interested in hearing any suggestions regarding how best to conduct research with those patients and their carers.
- We planned to have the following outputs: reports and presentations for government and hospitals, workshops and seminars for care professionals, public-facing brochure and video for patients and carers, and academic papers for researchers. Are those outputs appropriate or what else outputs can we have to improve the impacts of this study?

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# Creating Meaningful Encounters: The Application of Co-design to Intergenerational Programme

#### ZHANG Angela

#### Adelaide Dental School, The University of Adelaide

Participation in intergenerational programmes can have a positive impact on well-being across age groups. The design and activities of this participatory art program are created in such a way to be meaningful for the participants. The co-design approach has been developed to bring the experiences and perspectives of different groups of people together. Taking this approach by involving older people and children is critically important. However, cognitive decline, especially severe impairments due to later stages of dementia, may compromise some older people's efforts to communicate about their experiences to other people. Preschool children may also experience difficulties with self-expression due to limited linguistic skills. Facilitators and caregivers are often challenged to find appropriate activities that are meaningful to engage both older people with dementia and preschool children. Research is needed to explore ways in which the engagement of older people living with dementia and preschool children in the co-design of intergenerational programme can be increased

Key questions:

- How to conceptualise the operational definitions of "co-design" and "meaningful activities" for older people living with dementia and preschool children?
- What are the principles and practices that are essential to co-designing of intergenerational programme with older people living with dementia and preschool children?
- In the context of an intergenerational programme, are there specific activities that the Brains Trust would recommend to include in the process of co-design with older people living with dementia and preschool children?

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# Zoom Map

Access to the conference is via a single Zoom link to the '**Main Room**'. Opening and closing plenaries will be held in the main room. If you leave Zoom at any time during the conference you can click on the same link to re-join, which will return you to the main room'.

Concurrent sessions throughout the day are held in five '**Breakout Rooms**' – please select which Room number you wish to join from the Zoom Map below, using the Breakout Room function to go to your selected room (you can use the same function to move between Rooms during the concurrent sessions).

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

Time (ACDT)	Session	ZOOM ROOM						
		MAIN ROOM	BREAKOUT ROOM 1	BREAKOUT ROOM 2	BREAKOUT ROOM 3	BREAKOUT ROOM 4	BREAKOUT ROOM 5	
10.00 - 10.15am	Plenary Session	Opening						
10.15 - 11.15am	Concurrent Sessions (A) – Oral Presentations	Access to Breakout Rooms >	Mechanisms of Ageing	Cognitive Health Screening	Clinical Interventions	The Aged Care Workforce	Ageing and Place	
11.15 - 11.30am	Break							
11.30 - 12.30pm	Concurrent Sessions (B) – Oral Presentations	Access to Breakout Rooms >	Determinants of Brain Health	Cognitive Assessment	Clinical Care Practices	Education and Training	Care in the Community	
12.30 - 1.15pm	Break							
1.15 - 2.15pm	Concurrent Sessions (C) – Oral Presentations	Access to Breakout Rooms >	Predicting Health Outcomes	Dementia Care	Nutrition and Oral Health	Advances in Aged Care	Engagement and Participation	
2.15 - 2.30pm	Break							
2.30 - 3.30pm	Concurrent Sessions (D) – Oral Presentations	Access to Breakout Rooms >	Understanding Healthy Ageing	Experiences of Ageing	Physical Activity	Turning Barriers into Opportunities	Technology and Care	
3.30 - 3.45pm	Break							
3.45 - 4.45pm	Concurrent Sessions (E) – Ask the Era Brains Trust	Access to Breakout Rooms >	Aged Care Research Challenges	Designing Research for the Future	Informing Policy and Practice			
4.45 – 5.00pm	Plenary Session	Closing						

# **Time Zone Conversion Chart**

All session timings in the programme at the start of the document are in Adelaide (ACDT) time. The table below provides the conversion to other time zones

DURATION (MIN)	SESSION	NZ (NZDT)	VIC (AEDT)	QLD (AEST)	WA (AWST)
25	PRE-MEET (Q&A) – All welcome	12.00 - 12.25pm	10.00 - 10.25am	9.00 - 9.25am	7.00 - 7.25am
15	PLENARY – OPEN	12.30 - 12.45pm	10.30 - 10.45am	9.30 - 9.45am	7.30 - 7.45am
60	CONCURRENT A – Oral presentations	12.45 - 1.45pm	10.45 - 11.45am	9.45 - 10.45am	7.45 - 8.45am
15	BREAK	1.45 - 2.00pm	11.45 - 12.00pm	10.45 - 11.00am	8.45 - 9.00am
60	CONCURRENT B – Oral presentations	2.00 - 3.00pm	12.00 - 1.00pm	11.00 - 12.00pm	9.00 - 10.00am
45	BREAK	3.00 - 3.45pm	1.00 - 1.45pm	12.00 - 12.45pm	10.00 - 10.45am
60	CONCURRENT C – Oral presentations	3.45 - 4.45pm	1.45 - 2.45pm	12.45 - 1.45pm	10.45 - 11.45am
15	BREAK	4.45 - 5.00pm	2.45 - 3.00pm	1.45 - 2.00pm	11.45 - 12.00pm
60	CONCURRENT D – Oral presentations	5.00 - 6.00pm	3.00 - 4.00pm	2.00 - 3.00pm	12.00 - 1.00pm
15	BREAK	6.00 - 6.15pm	4.00 - 4.15pm	3.00 - 3.15pm	1.00 - 1.15pm
60	CONCURRENT E – ERA Brains Trust	6.15 - 7.15pm	4.15 - 5.15pm	3.15 - 4.15pm	1.15 - 2.15pm
15	PLENARY – CLOSE	7.15 - 7.30pm	5.15 - 5.30pm	4.15 - 4.30pm	2.15 - 2.30pm
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