Welcome to the OSA's Research Rounds. We seek to both educate and inspire in this monthly compendium of research, publications, commentary and events about seniors in British Columbia and beyond. Please feel welcome to email us feedback and items to share.





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### **BRITISH COLUMBIA**

## Mega-Analysis of Gene Expression in Mouse Models of Alzheimer's Disease eNeuro

While multiple studies have been conducted of gene expression in mouse models of Alzheimer's disease, their findings have not reached a clear consensus and have not accounted for the potentially confounding effects of changes in cellular composition. To help address this gap, the authors of this paper conducted a re-analysis based meta-analysis (mega-analysis) of ten independent studies of hippocampal gene expression in mouse models of Alzheimer's disease. The authors conclude that, among other things, the identification of shared gene expression changes in the early phase increases our understanding of disease initiation and progression.

### <u>Depressive symptoms in long term care facilities in Western Canada: a cross sectional study</u> BMC Geriatrics

The objective of this study was to better understand the prevalence of depressive symptoms, in long-term care residents with or without cognitive impairment across Western Canada. The authors conclude that depressive symptoms are common in LTC residents, particularly in those with cognitive impairment. Depressive symptoms are an important target for clinical intervention and further research to reduce the burden of these illnesses.

## <u>Under the radar: new imaging tools help researchers study hard-to-diagnose heart attacks in</u> women

#### Vancouver Coastal Health Research Institute

A small sub-group of heart attack patients, mostly women, don't present with typical symptoms or show blockage in their arteries with standard testing. This article discusses a new study of women like these at the Vancouver Coastal Health Research Institute using diagnostic imaging tools.

## **CANADA**

### <u>Multidisciplinary Medication Review in Long-Term Care: A Review of Clinical Utility, Cost-</u> Effectiveness and Guidelines

#### **Canadian Agency for Drugs and Technologies in Health**

This report aimed to review the evidence regarding the clinical utility and cost-effectiveness of multidisciplinary medication reviews in long-term care facilities, as well as clinical guidelines on multidisciplinary medication reviews. Its findings were uncertain and further research on multidisciplinary medication reviews were recommended.

# **Boost your brain health with exercise targeting both your body and your brain McMaster University**

Declining cognitive function is a massive global health issue. Combined physical activity and brain training can be one way to improve cognitive function in older adults with or without mild cognitive impairment. McMaster University's Optimal Aging Portal has compiled a variety of research and resources on this topic.

# We Are Caregivers: Social Identity is Associated with Lower Perceived Stress among Rural Informal Caregivers

#### **Canadian Journal on Aging**

This research explored experiences of rural informal caregivers, including how social identification as a caregiver, social interactions, and formal and informal coping support related to perceived stress. Results suggest that, although available rural services may fall short, other options might alleviate caregiver stress, including facilitating access to coping support, encouraging social interactions, and enhancing caregiver social identity.

#### High-intensity exercise improves memory and wards off dementia

#### The Conversation

This article discusses research conducted at McMaster University's NeuroFit Lab. This research has shown that physical inactivity contributes to dementia risk as much as genetics and that the intensity of exercise matters in improving memory.

Barriers and facilitators to development and implementation of a rural primary health care intervention for dementia: a process evaluation

**BMC Health Services Research** 

This research identifies a lack of rural-specific primary health care models for dementia interventions. Using a community-based participatory research approach, researchers collaborated with a rural PHC team to co-design and implement an evidence-based interdisciplinary rural PHC memory clinic in the Canadian province of Saskatchewan. This paper reports barriers and facilitators to developing, implementing, and sustaining the intervention.

### **INTERNATIONAL**

## <u>Horticultural Therapy in Patients With Dementia: A Systematic Review and Meta-Analysis</u> American Journal of Alzheimer's Disease & Other Dementias

This article investigated the psychological health benefits of horticulture intervention in dementia patients. The authors conclude that patients with dementia benefit from horticultural therapy by alleviating their agitation level and increasing time spent on activity engagement.

# Balancing the struggle to live with dementia: a systematic meta-synthesis of coping BMC Geriatrics

The aim of this systematic meta-synthesis was to interpret and synthesize knowledge regarding people with dementia's experience of coping. The results indicate that people with dementia cope in different ways and using several parallel strategies

### <u>Oral Health and Its Associated Factors Among Older Institutionalized Residents – A Systematic</u> Review

#### International Journal of Environmental Research and Public Health

The objective of this study was to describe recently reported oral health levels and the associated factors among older institutional residents. The authors conclude that, for improved oral health, clinical trials are needed, targeting modifiable factors, such as social inequality, oral healthcare accessibility, and/or nursing home service quality.

# <u>Implementation of the Stopping Elderly Accidents, Deaths, and Injuries Initiative in Primary Care: An Outcome Evaluation</u>

#### The Gerontologist

The Centers for Disease Control and Prevention's Stopping Elderly Accidents, Deaths, and Injuries (STEADI) initiative was developed as a multifactorial approach to fall prevention that includes screening for fall risk, assessing for modifiable risk factors, and prescribing evidence-based interventions to reduce fall risk. The purpose of this study was to determine the impact of a STEADI initiative on medically treated falls within a large health care system in Upstate New York. The authors conclude that implementation of STEADI fall risk screening and prevention strategies among older adults in the primary care setting can reduce fall-related hospitalizations and may lower associated health care expenditures.

# <u>Association of Dietary Patterns in Midlife and Cognitive Function in Later Life in US Adults</u> Without Dementia

#### **JAMA Network Open**

This article examined the association between Western dietary patterns in adults in midlife and cognitive decline in later life. The authors conclude that there may not be any connection between the two.

## <u>Use it or lose it: a qualitative study of the maintenance of physical activity in older adults</u> **BMC Geriatrics**

This study aimed to provide a better understanding of physical activity maintenance behaviours in older people. The authors found that a range of modifiable factors influence continued participation in physical activity at the end of exercise programmes.

- END-



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