Introduction

This newsletter provides a brief summary of some of the latest research and publications that may be of interest to practitioners in the field of addiction and mental health. Each newsletter will cover one of the themes of the Alberta Addiction and Mental Health Research Partnership Program and provides structured accounts of research on a given topic, based on a limited search of the literature for recent publications. We do not thoroughly assess the quality of the research identified so this publication acts as a signpost for further reading and assessment, rather than as a definitive account of what should be included in clinical practice.

This month’s edition focuses on Geriatric Addiction and Mental Health.

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Chronicity of posttraumatic stress disorder and risk of disability in older persons

Study Design: Cross-sectional survey

Focus of the Study: The relationship between geriatric depression and disability has been widely researched. However, few studies have explored the association between posttraumatic stress disorder (PTSD) and disability in older adults. In an effort to address this gap, this study determined the relationship between PTSD and disability among older adults, and examined if the association differed by...
chronicity (no PTSD, pre-late life PTSD, and persistent PTSD).

**Key Findings:**
» Of the participants surveyed, 4% had pre-late life PTSD (age of onset <55 years and age at last diagnosis <55 years), with roughly half of these individuals experiencing persistent PTSD into later life (age of onset <55 years and age at last diagnosis ≥55 years).
» The frequency of any disability, defined by 5 domains of the World Health Organization Disability Assessment (WHODA) Schedule (out of role, self-care, mobility, cognition, and social), was 80% for persistent PTSD, 70% for pre-late life PTSD, and 37% for no PTSD.
» After adjusting for depression, generalized anxiety disorder, substance use disorder, demographics, smoking, and medical conditions, individuals with persistent PTSD were 3 times more likely to have any disability than individuals with no PTSD when measuring for global disability score. However, the association between pre-late life PTSD and disability was not significant.
» When measuring the 5 domains of disability, and adjusting for the previously mentioned WHODA variables, persistent PTSD remained significantly associated with all 5 domains. Conversely, pre-late life PTSD was only strongly associated with mobility and social functioning.

**Implications for Practice:** The findings from this study highlight the strong association between PTSD, especially persistent PTSD, and disability in older adults. If left untreated, PTSD in older adults could have significant cognitive and functional consequences. Because persistence of PTSD in later life was shown to be a strong predictor of disability in late life, it may be important to improve the monitoring and treatment of PTSD over the long term in older adults.

[Link to full abstract](https://www.mailoutinteractive.com/Industry/View.aspx?id=553065&q=0&qz=bfbf66)

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**Effect of vitamin E and memantine on functional decline in Alzheimer disease: The TEAM-AD VA Cooperative randomized trial**

**Study Design:** Randomized double blind, placebo-controlled clinical trial

**Focus of the Study:** There is evidence for the beneficial effect of vitamin E and memantine in moderately severe Alzheimer disease (AD) but the evidence is limited for those with mild to moderate AD. This study aimed to determine if vitamin E (alpha tocopherol; 2000 IU/d), memantine (20mg/d) or both slow the progression of mild to moderate AD over a mean follow-up of 2.3 years, in patients taking an acetylcholinesterase inhibitor.

**Key Findings:**
» Patients receiving vitamin E had a significantly slower functional decline (measured by Alzheimer's Disease Cooperative Study/Activities of Daily Living Inventory Score) than those receiving the placebo. There was a 19% delay in clinical progression per year compared to the placebo, which equated to approximately six months over the follow-up period.
» No significant differences were observed for the functional decline of the memantine/vitamin E combined group compared with the group that received the placebo.
» The findings suggest that reduced caregiver time was associated with the vitamin E group, however, the study does not definitively show this and further research is needed to confirm these results. The vitamin E group had approximately 2 hours per day less reported caregiver time than the placebo group.
» Despite previous studies that have suggested concerns related to increased all-cause mortality with high dose vitamin E, no evidence was found that the dosage of vitamin E in this study was unsafe.

**Implications for Practice:** Alzheimer disease can result in debilitating functional decline impacting both the patient and their caregivers. Vitamin E may slow functional decline and decrease caregiver burden in those with mild to moderate AD taking an acetylcholinesterase inhibitor.

[Link to full abstract](https://www.mailoutinteractive.com/Industry/View.aspx?id=553065&q=0&qz=bfbf66)
**Exercise programs for people with dementia**

**Study Design:** Meta-analysis

**Focus of the Study:** This updated Cochrane review aimed to determine the impact of exercise for people with dementia. In particular, this review looked at the impact on cognition, activities of daily living, as well as family caregivers’ burden and health care services use.

**Key Findings:**
» A total of 16 trials were included in the review and the majority focused on cognition, activities of daily living, and depression outcomes.
» The meta-analysis suggests that exercise programs may improve cognitive functioning for people with dementia. However, there was considerable variation between the studies, making them hard to compare and the effect was no longer significant after the exclusion of an outlier study from the meta-analysis.
» Exercise programs had a significant impact on improving the ability to perform activities of daily living in people with dementia.
» The studies identified in the review showed that participation in an exercise program had no significant effect on depression.
» None of the studies reported adverse events related to participation in exercise.
» More research is needed to understand the type of exercise that is best for improving cognition and activities of daily living by type and severity of dementia.

**Implications for Practice:** Exercise programs may improve the ability to perform activities of daily living and possibly cognitive functioning in people with dementia.

[Link to full abstract](https://www.mailoutinteractive.com/industry/View.aspx?id=553065&q=0&qz=bfbf66)

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**Ten-year effects of the Advanced Cognitive Training for Independent and Vital Elderly cognitive training trial on cognition and everyday functioning in older adults**

**Study Design:** Follow-up of a randomized controlled trial

**Focus of the Study:** Cognitive decline is a concern for older adults and there is evidence for the effectiveness for cognitive training. However, the long-term effects of cognitive training on maintaining the benefits for cognitive abilities and delaying everyday functioning difficulties have not been well examined. This study presents the results from the ten year follow-up of interventions for older adults involving training for either memory, reasoning or speed-of-processing with and without booster sessions compared to a control group.

**Key Findings:**
» Cognitive training interventions resulted in immediate improvements in the specifically trained cognitive abilities (memory, reasoning and speed-of-processing) and these effects dissipated slowly. At five years these improvements persisted for memory training and continued to persist ten years later for reasoning and speed-of-processing training.
» The intervention groups reported less difficulty with instrumental activities of daily living. At 10 years, approximately 60% of the trained participants had the same or an improved level of performance for the instrumental activities of daily living, compared to 50% of the controls.
» Booster training appeared to result in additional maintenance benefits on reasoning and speed-of-processing performance. However the evaluation of the effect of the booster training was limited because the booster-trained and non-booster-trained groups were not fully comparable.

**Implications for Practice:** Cognitive training for older adults can provide immediate improvements for the specific cognitive ability trained and these benefits may persist over time. It may be important to target multiple cognitive abilities to improve function.
Randomised controlled trial of group cognitive behavioural therapy for comorbid anxiety and depression in older adults

Study Design: Randomized controlled trial

Focus of the Study: Comorbid anxiety and depression is common in older adults. It increases the risk of dementia and suicide and is linked with poorer mental health and physical outcomes. In spite of the high prevalence of comorbid anxiety and depression in older adults, research investigating the effectiveness of psychological programs for treatment of these conditions is minimal. This study assessed the value of a group cognitive behavioral therapy (CBT) program in a small sample of older adults with comorbid anxiety and depression.

Key Findings:
» Compared to individuals in the control group, participants receiving treatment in the CBT program showed important improvements in clinician reported and self-reported ratings of anxiety and depression symptoms. The program was successful in targeting both primary anxiety and primary depression problems, as improvements in symptom reductions were observed in both.
» 74% of participants in the CBT group demonstrated meaningful change on clinician rated severity of their primary clinical problem compared to 23% of control participants. On self-report measures, 40-50% of CBT participants noted a meaningful change in primary clinical problem severity compared to <1-15% of control participants.
» Recovery rate for the primary disorder (i.e., either anxiety or mood disorder based on the presence of a full clinical anxiety or mood disorder) was 53% in the treatment group; this was significantly higher than the 11% recovery rate observed in the control group. This recovery rate was maintained and increased at three month follow up (67%).
» Despite these improvements on symptoms of anxiety and depression, no significant differences were discovered between groups on measures of worry and well-being.

Implications for Practice: Given the high prevalence rate of comorbid anxiety and depression in geriatric populations and its negative effects on physical and mental health, efficacious interventions are needed. Results from this study suggest that group CBT therapy may be useful in the reduction of symptoms of comorbid anxiety and depression in older adults.

Cognitive complaints correlate with depression rather than concurrent objective cognitive impairment in the Successful Aging Evaluation baseline sample

Study Design: Cross-sectional study

Focus of the Study: There is considerable debate about the role of subjective cognitive complaints in determining concurrent and future cognitive performance in community-based older adults (i.e., those not living in a nursing home or requiring daily nursing care). Moreover, subjective cognitive complaints have been linked to depression, in some cases more significantly, than with objective cognitive performance. This issue can complicate the diagnosis of mild cognitive impairment and dementia prevention strategies. This study examined the relationship between objective cognitive function, subjective cognitive complaints, and depression in a large sample of community-based older adults (aged 50 to 99 years) without dementia.

Key Findings:
» The study did not find a relationship between subjective cognitive complaints (Cognitive Failure Questionnaire score) and objective cognitive performance (Modified Telephone Interview for Cognitive Status score) after controlling for age, gender, ethnicity, physical functioning, and depression (9-item Patient Health Questionnaire).

» There was a strong relationship between subjective cognitive complaints and symptoms of depression after controlling for demographic variables, physical functioning, and objective cognitive performance.

» The relationship between subjective cognitive complaints and depression was present across all age groups.

**Implications for Practice:** The findings from this study indicate that subjective cognitive complaints are more closely linked to symptoms of depression than objective cognitive function in community-dwelling older adults without a diagnosis of dementia. Screening for depression may be considered with patients who present with subjective cognitive complaints.

[Link to full abstract]

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