

P164: Reminiscence therapy to reduce falls and weight loss: The protocol and outcomes of a pilot trial in residential aged care.

Authors: Romy Engelbrecht

Objective: Falls is the leading cause of injury, and injury-related cognitive decline and death for older adults. Weight loss and malnutrition contribute to the risk of falls through increased frailty, visual and cognitive impairment, and predicts both the severity and recovery time of falls. Psychological and social factors such as isolation, loneliness, cognitive impairment, anxiety and depression are significantly associated with falls and weight loss for older adults. Reminiscence therapy is a psychological intervention that can improve anxiety, mood disorders, cognition and isolation; however, it is not yet known the impact that reminiscence therapy has on the incidence of falls and weight loss. This abstract will present the existing research on reminiscence therapy for the prevention of falls and weight loss, describe a group reminiscence therapy protocol to target these risk factors, and outline preliminary findings from a small pilot trial group therapy program conducted in February, 2023.

Results: Data on pre and post incidence of falls and weight loss collected from eHealth records for: 1) 3 months prior to the group, and 2) the 9-week duration of the group will be discussed. Group participants will complete a pre and post Depression Anxiety Stress Scale (DASS21) and provide feedback on the therapy protocol.

Conclusion: This presentation will discuss the suitability of a group reminiscence therapy protocol to reduce psychological and social risk factors associated with falls and weight loss for older adults in residential aged care.

P165: Music-assisted reminiscence therapy: The theory behind a new frontier for enhancing the wellbeing outcomes for older adults

Author: Romy Engelbrecht, Sunil Singh Bhar, Joseph Ciorciari

Objective: Reminiscence therapy is an evidence-based treatment for late life depressive symptoms, and has been associated with improvements in cognitive function, loneliness, happiness, and wellbeing for older people. While music is often involved in reminiscence therapy, little is known about how music is used or works in this context. Specifically, we do not know what purpose music serves, or how it works to enhance the experience when combined with reminiscence therapy. This presentation will provide an overview of two studies exploring how music enhances reminiscence therapy.

Method: A narrative literature review was conducted with a structured search strategy to identify all relevant literature. Furthermore, a single-case repeated measures experimental EEG study with 4 older adults experiencing psychological distress was conducted. Participants were randomly assigned to a single session of either verbal reminiscence therapy or music-assisted reminiscence therapy. EEG recordings of resting states (e.g., eyes closed) were taken before and after the session, together with different epochs recorded during the session (e.g., during the start of reminiscence, the problem solving success, and music played). Analysis involved calculating the standardised LORETA (sLORETA) calculations to map regions and sources of EEG activity during these epochs.

Results: The SEED model proposed that music enhances reminiscence through: Summoning autobiographical memories, eliciting physiological responses, evoking emotional reactions and pleasure, and defining and describing self-identity and social connectedness. Findings of the EEG study suggested that for the individual participants, both verbal and music-assisted reminiscence therapy resulted in widespread and lateralised activation. These activations were stronger for music- assisted reminiscence than for verbal reminiscence, particularly in the central and frontal areas. Only participants who received music-assisted reminiscence demonstrated activation in areas associated with emotional regulation and meditation, providing preliminary evidence for the SEED model.

Conclusion: The two presented studies contribute to our understanding of the potential mechanisms for change when applying reminiscence and music-assisted reminiscence therapy interventions to improve wellbeing for older people.

P172: A preliminary study for potential protective role of anti-oxidative stress markers for cognitive impairment: glutathione and glutathione reductase.

Author: Sang A Park

Objective: We aimed to study the relationship between glutathione (GSH), a key molecule of the anti-oxidant defense system in the blood, and glutathione reductase (GR), which reduces oxidized GSSG to GSH and maintains redox balance, with the prevalence of Alzheimer's dementia and cognitive decline.

Methods: 20 with normal cognition and 20 with Alzheimer's dementia who completed the 3rd f/u clinical evaluation over 6 years were selected by matching age and gender. Plasma glutathione (GSH) and glutathione reductase (GR) concentrations were independent variables. Clinical diagnosis and neurocognitive test scores were used as dependent variables indicating cognitive status.

Results: The higher the GR, the greater the possibility of normal cognition rather than Alzheimer's dementia. Also, the higher the GR, the higher the neurocognitive score. However, this association was not significant in GSH in any way. After 6 years, the conversion rate from normal cognition to cognitive impairment was significantly higher in the lower 50th percentile of the GR group than in the upper 50th percentile.

Conclusion: According to the result of this study, the higher the GR, the lower the prevalence of Alzheimer's dementia and incidence of cognitive impairment, and the higher the cognitive outcome. Therefore, GR can be regarded as a protective biomarker for Alzheimer's dementia and cognitive decline.

P179: Clinical characteristics and potential link to Parkinson's disease and dementia with Lewy bodies in patients with major depressive disorder who received maintenance ECT

Authors: Shun Kudo, Takahito Uchida, Hana Nishida, Akihiro Takamiya, Toshiaki Kikuchi, Bun Yamagata, Masaru Mimura, Jinichi Hirano