

FC54: Effects of a mindfulness meditation intervention with neurofeedback on psychological well-being, cognition, and quality of life in older adults experiencing loneliness - a pilot randomized controlled study

Authors: Eugenie Roudaia, Nicole D. Anderson, Malcolm Binns, Morris Freedman, Nasreen Khatri, Linda Mah, Gibbs Jr Ollivierre, Helena Teng, Konka Paul, Allison B. Sekuler

Objectives: Loneliness is a modifiable risk factor for depression and dementia in older age. Validated interventions are needed to mitigate the impact of loneliness in older adults. Some evidence suggests that mindfulness meditation may reduce stress, improve mood and cognitive function, and may also impact loneliness per se. Many meditation apps offer an accessible way to meditate at home. However, robust research is needed to assess the benefits of meditation using this technology for older adults. Muse is a meditation app that analyzes brain signals during meditation and provides users with real-time neurofeedback on their level of focus.

Methods: We conducted a pilot, randomized controlled trial to establish the acceptability and feasibility of a remote, mindfulness intervention using Muse in older adults, and to obtain preliminary data on its impact on mood and cognition. Twenty-six adults reporting feeling lonely were enrolled and randomized to an 8-week Muse-based meditation (MM) or a brain-training active control (BT) program. The MM group completed meditation sessions with real-time neurofeedback and guided meditation sessions using Muse. The BT group completed cognitively challenging games on the commercially available Peak app and listened to podcasts. The groups were matched on the amount of interactions with study staff and total program duration. Outcome measures included standardized self-report scales of loneliness, stress, depression, well-being, quality of life, sleep disturbance, resilience, and mindfulness. Staff blinded to program assignment administered cognitive tasks of episodic memory, working memory, and sustained attention, as well as a breath counting task. Assessments were taken at Pre, Mid, and Post intervention, and after a 2-month and 4-month (4M) follow-up period.

Results: Participants found both programs engaging and the remote assessments were feasible. The MM group showed a greater improvement in depressive symptoms, and psychological and physical QOL, compared to the BT group, at Post and at 4M.

Conclusions: A Muse-based mindfulness program is an acceptable and accessible intervention for older adults. A large-scale randomized trial is warranted to evaluate the efficacy of this intervention in this group.

FC55: Geriatric abuse in India: Unveiling a hidden crisis

Authors: Achyut Trivedi, Mahima Kinha Jr.

Objectives: Geriatric abuse, a grave violation of human rights affecting older adults, remains a silent epidemic in India. This study provides an insight into the prevalence, manifestation, contributing factors and societal implications of geriatric abuse within the Indian context. Drawing from scholarly research and empirical evidence it aims to illuminate the multifaceted nature of this phenomenon and advocate for urgent attention from policy makers, healthcare professionals, and society at large. Despite its pervasive nature, geriatric abuse in India often goes unnoticed and unaddressed due to cultural norms, family secrecy and systemic neglect. The abuse may take various forms including physical, psychological, financial and neglect perpetrated by family members, care givers or institutional staff. Factors such as socio-economic disparities, gender inequalities and cultural attitudes towards aging intersect to exacerbate the vulnerability of older adults to abuse. Understanding the socio-cultural