Effects of an exercise format, Ageless Grace™, on cognitive performance in older adults

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Background: Prevention of dementia through non-pharmacological interventions is gaining traction for research. Exercise has been shown to benefit cognition, mood and physical factors. However, the particular type, and duration of, exercise that correlates best with these changes is not well defined. Listening to music also has marked benefits for people with dementia. We were interested to explore the effects of an exercise format that is performed with music. Ageless Grace™ was developed to enhance neuroplasticity. It is based on 21 exercise tools that engage the mind and body. To date there are no publications showing a direct link between Ageless Grace™ and cognitive performance. We aimed to conduct a pilot study to determine change in cognition, mood and physical parameters from intervention with Ageless Grace™ in older people without dementia.

Methods: 12 people (mean 82.4 y), completed one session per week of Ageless Grace™ for an average of 7 weeks. Baseline demographics, cognitive tests, a grip strength test and resilience scale were completed at baseline and follow-up. All measures were tested for change over time with independent t-tests.

Results: There was a significant increase in scores (p=0.027) on the Montreal Cognitive Assessment (MoCA) at the end of 7 weeks. None of the other measures showed significant change. Overall, participants enjoyed the exercise technique.

Conclusions: This pilot study shows promise for effects of Ageless Grace™ on cognitive performance over a short term. Further experimentation with suitable outcome measures, duration of intervention and inclusion of those with memory problems or dementia are warranted.

Biography

Celeste A de Jager, University of Cape Town (UCT) worked in the fields of neuropsychology and dementia research for 14 years at the University of Oxford, UK. She was the Principal Investigator in studies with Merck, plc to identify sensitive neuropsychological tests as outcomes for AD treatment trials; and for the Cognitive Archaeology collaborative study with Dr Peter Garrard from St George’s University, London, on linguistic markers to predict dementia. She designed the cognitive and clinical assessment aspects of the VITACOG trial of B vitamins and omega-3 for those with MCI. Latter work involved novel brain imaging studies for predictive markers of Alzheimer’s disease. She obtained a British Academy award for community screening for cognitive impairment in India. She returned to UCT in South Africa in 2012 as a Senior Lecturer in Clinical Epidemiology and obtained a WUN award to examine nutrition and cognition in collaboration with Dementia SA, and researchers from Leeds and Sheffield University. She held the interim South African Research Chairs Initiative in Clinical Neurosciences from 2013-2014 and piloted dementia screening tools for Xhosa-speaking elders in order to conduct a large dementia prevalence study in a low-income community. She represented OPTIMA as a member of the European Alzheimer’s Disease Consortium (EADC) and was an academic expert on the Nutrition and Mental Performance task force with the Institute of Life Sciences-Europe. She now leads the design of the assessment and recommendation system for stuward.com for family carers of people with dementia. She is an Editorial Board member for Journal of Alzheimer’s Disease and a reviewer for many medical journals.

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