

PSYCHO-EDUCATION FOR INFORMAL DEMENTIA CARE-GIVERS: IS REFRAMING THE MOST IMPORTANT STRATEGY?

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Persons with dementia are often reliant on care given to them by close relatives or friends. These informal care-givers play a key role in helping their loved ones remain living at home but they can experience a heavy burden, putting them at high risk for exhaustion and health challenges which often leads to early institutionalization of the person with dementia. Psycho-educative interventions are effective in improving quality of life for care-givers, they typically teach a range of coping techniques but we know little about how these strategies are implemented in daily life. Our aim was to evaluate a validated psycho-educative program for informal care-givers for persons with dementia (15 sessions focused on three coping strategies: reframing, problem-solving and support-seeking). We did a pre-post analysis using mixed-methods design. Eighteen of 24 care-givers completed the program (dropout 21%). Results showed a reduction in burden ($t=2.13$, $p=.025$, $d=0.41$) and psychological distress ($t=1.94$, $p=.035$, $d=0.54$) and an increase in self-efficacy ($t=-2.33$, $p=.016$, $d=0.47$). We used interactive software to record implementation strategies used by the care-givers over 15 weeks. They improved their identification of unhelpful thoughts ($\beta=0.10$, $p=.045$), tried more often to reframe them ($\beta=0.24$, $p=.005$), and became more successful at doing so ($\beta=0.24$, $p=.018$). In contrast, problem-solving and support-seeking remained stable. In post-intervention interviews care-givers consistently mentioned that reframing was a helpful strategy which may, in part, explain the quantitative findings. In conclusion, having informal care-givers conceive the challenges they face differently seemed to be a promising core component of an efficient psycho-educative program.

RESULTS OF A MODERATE-INTENSITY EXERCISE PROGRAM FOR IWDs: IMPLICATIONS AND FUTURE DIRECTIONS

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Individuals with dementia (IWDs) experience difficulties across cognitive and functional domains resulting in disability. Non-pharmacological interventions aimed at reducing disability are greatly needed. Exercise is a low-cost and easily implemented approach for addressing disability but has not received extensive investigation. The aim of the current study was to develop and evaluate a novel and innovative moderate-intensity functional strength and balance program for IWDs using a randomized-controlled intervention trial. The sample consisted of 23 IWDs with an average age of 76.63 years demonstrating mild to moderate cognitive impairment (MMSE: $x=20.83$). Data indicated a high level of acceptability and feasibility of the current intervention with 99.04% treatment adherence suggesting that IWDs can participate in a moderate-intensity exercise program. Efficacy was examined using multiple linear regression. Group assignment significantly predicted performance in key outcome measures. IWDs in the intervention group demonstrated improvements in lower-extremity strength ($B=5.92$,

$t=3.26$, $p=.004$), balance ($B=4.04$, $t=4.13$, $p=.001$), and fast gait speed ($B=.32$, $t=2.61$, $p=.02$). These findings highlight the role exercise can be used to address IWDs' disability. Clinical implications and future research directions will be discussed including: 1) translating findings to clinical practice; 2) extending the protocol to include modifications that would potentially impact cognitive domains and psychological well-being; and 3) inclusion of physiological biomarkers to understand the underlying mechanisms of exercise on IWDs.

OPEN LABEL TRIAL OF MAGNESIUM L-THREONATE IN PATIENTS WITH DEMENTIA

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In the United States, there are an estimated 5.2 million cases of Alzheimer's Disease (AD), with AD and other dementias affecting nearly 1 in 3 senior adults. With the mounting financial and emotional burden of patient care, finding safe and efficacious treatments is essential. Emerging research on the cognitive effects of Magnesium L-Threonate (MGT) suggests that supplementation may benefit individuals with AD. Although limited, existing animal and human clinical trial data regarding the neural and cognitive outcomes after MGT supplementation, a mechanistic explanation of MGT effects is beginning to emerge, including upregulation of NMDAR signaling pathways. The current open label trial explored the effects of MGT use in patients with mild to moderate dementia. Fifteen patients underwent 18F-FDG-PET imaging, cognitive testing, and blood draws at baseline and at 12 weeks of treatment in order to assess the acute effect of MGT supplementation on hippocampal and prefrontal cortex mediated cognitive abilities including executive function, attention, processing speed, verbal fluency and memory. Cognitive testing and blood draws were also performed after 8 weeks of MGT discontinuation. Findings showed a significant improvement in regional cerebral metabolism along with improvement in a global index of cognitive functioning in the total sample after 12 weeks of MGT treatment. Increased red blood cell magnesium levels were associated with improvements in overall cognition and executive functioning in some but not all patients. Larger placebo controlled clinical trials are warranted to evaluate MGT as an effective, easily accessible, and affordable treatment supplement for individuals with AD.

SCIENTIFIC EVIDENCE FOR POSITIVE EFFECTS OF FAIRY TALE TELLING FOR PEOPLE WITH DEMENTIA

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