

# Mindfulness and guided imagery for depressed family caregivers of patients with Alzheimer's disease and related dementias: clinical outcomes and neural mechanisms

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USA

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Mindfulness and guided imagery for depressed family caregivers of patients with Alzheimer's disease and related dementias: clinical outcomes and neural mechanisms

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Clinical Trials and Supportive Activities... Complementary and Alternative Medicine...  
Dementia... Depression... Mental Health... Mental Illness... Mind and Body...  
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### **Research Abstract**

Family caregivers of patients with Alzheimer's disease and related dementias are a vulnerable population at increased risk of physical and psychological complications due to increased stress. Notably, caregivers who report psychological stress are at a greater risk of early death relative to non-caregivers, whereas unstressed caregivers do not share this risk. Increased mortality, lower immunity, and increased depression – all of which are found in caregivers of family members with Alzheimer's disease – indicate that caregiving stress interferes with the process of normal biological aging. Psychological symptoms in caregivers also increase the risk of institutionalization of the relative with dementia. It is therefore crucial to develop interventions that can lower caregiver stress and reduce depression, and to understand neural mechanisms of improvement. Central Meditation and Imagery Therapy for Caregivers (CMIT) is a 4-week group mindfulness and guided imagery group therapy intervention that aims to reduce negative psychological symptoms such as depression and stress, and promote healthy aging. It was designed as a brief intervention to fit with caregivers' busy schedules. CMIT provides practical relaxation and mindfulness techniques that aid with individual peace of mind, and also improve perspective taking with participants' loved ones with dementia. These benefits combined may bolster caregivers' mental and social functioning as they age. We obtained feasibility data from a small, controlled trial of CMIT (N = 20) with depressed caregivers of family members with Alzheimer's disease and related dementias, that demonstrated a large effect of CMIT relative to a relaxation control condition on reducing caregiver depression, and provided preliminary evidence in a subset of caregivers (N = 8) that CMIT may effect structural and functional brain changes. With this R21 grant, we will conduct a randomized, controlled, single-blind pilot clinical trial of 50 depressed caregivers, and obtain neuroimaging to determine mechanisms of caregiver improvement relative to a support group. We hypothesize that CMIT will have moderately greater effects on reducing caregiver depression than a support group, and that participants in CMIT but not the support group will demonstrate changes in brain structure and function. These hypotheses will be tested with our Specific Aims: (1) Determine an effect size of CMIT for the treatment of depression symptoms in caregivers with Alzheimer's disease and related dementias relative to a support group, (2) Identify brain circuits that correlate with improvement from pre to post intervention, (3) Determine whether structural brain changes are associated with improvement of caregiver depression with CMIT over 4 weeks. These experiments may help to establish a new, brief therapy for caregiver depression and understand neural mechanisms of improvement to help guide future research.

### **Further information available at:**

#### **Types:**

Investments < €500k

#### **Member States:**

United States of America

#### **Diseases:**

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