

# Complementary and Alternative Treatments in Older Adults with Cognitive Impairments

*Mini Review*

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**Abstract**

The number of older adults who are affected by some form of cognitive impairment is on the rise. Caring for an older adult with cognitive impairments can be challenging, costly and stress an already overwhelmed healthcare system. The use of complementary and alternative therapies such as participatory art therapy and animal-assisted therapies have shown trends towards improvements in cognition, life satisfaction, social connectedness, and improvements in quality of life.

**Keywords:** Alternative Therapy; Cognitive Therapy; Complementary Medicine in Older Adults

**Background**

Cognitive impairment is “a person that has trouble remembering, learning new things, concentrating, or making new decisions in life” [1]. Cognitive impairments in older adults can range from very mild, such as intermittent forgetfulness, to advanced impairment, as what is seen in end-stage Alzheimer’s and dementia Worldwide, roughly 50 million people are affected by cognitive impairments, with predictions that this number could increase above 80 million by 2030 [2]. Care for individuals with cognitive impairments can be rewarding but also quite challenging. Caregiving at home by family members can lead to caregiver role strain and burnout. At the same time, care by a nursing professional in the hospital, community, or long-term care can be costly and contribute to an overwhelmed healthcare system. Additionally, caring for an individual with memory impairment is quite expensive. The cost of memory care for older adults is expected to be as high as \$1 trillion by 2050 [3].

**Why Use Complimentary Therapies**

Unfortunately, there is no one treatment to cure the issues associated with cognitive impairments and cognitive diseases. Typical treatment regimes include medications to improve memory and alterations in their environment, such as reducing distractions and environmental triggers. The problem with this plan is that typical older adults with cognitive impairments often have many co-morbidities and take quite a few medications for those issues. When you combine all of these medications, the issue of polypharmacy becomes a real issue. Furthermore, as demonstrated above, the cost of caring for one with memory impairments is quite expensive and uses up quite a bit of healthcare resources in an already overwhelmed healthcare system. With a burgeoning healthcare system, cost of care, and increased need for care, we need solutions to help prevent, treat, and minimize the issues related to cognitive impairment [4]. We briefly examined

the literature and found some success in solving this issue through combination treatment modalities, participatory arts therapies, yoga, horticultural therapy, and animal-assisted therapies.

**Combination Treatment Modalities**

Some literature shows that using a combination of pharmaceutical therapies combined with alternative methods such as acupuncture, music, and physical therapy can improve cognitive dysfunction [5,6]. One should be mindful that this formula is not a cure for everyone, but treatment modalities should focus on patient-centered care [6]. Interestingly, a study with aging veterans found that a combination of music therapy, art, and physical activity was found to decrease agitation, hallucinations, and delusions in this group [7]. An interesting study examined the outcomes of the caregivers and their patients through the combination of hydrotherapy, herbal medicine, exercise, and a healthy diet, demonstrating positive emotional and functional benefits for both parties [8]. This study found that the calmer residents reported feeling more at ease with a better quality of life, and the caregivers stated that they had higher work satisfaction by implementing this therapy [8]. It is promising to see that the caregivers in addition to the older adults can benefit from alternative modalities.

**Participatory Arts Therapy**

Activities such as expressive writing, singing, instrumental music, theater arts, and visual arts have recently been used in several facilities to combat issues associated with neurocognitive disorders and dementia. One particular study performed a literature review of 31 articles using these participatory art therapies and found that older adults reported improvements in memory, creativity, and problem-solving [9]. A more recent study performed a literature review of art therapy alone and reported improvements in well-being and cognitive



functions in 88% of the studies they examined [10]. These findings merit considering participatory art therapy in your treatment regime.

### Yoga/Tai Chi Therapy

Many studies have demonstrated the benefits of physical activity on human health. Yoga/Tai Chi and other mind-body types of exercise have been shown to improve cognitive functioning status in older adults with cognitive impairments [11,12]. Perhaps these mind-body types of activities can benefit older adults physically, but more importantly, they can assist with mood and mental health.

### Horticultural Therapy

Gardening, or horticultural therapy, is an innovative and cost-effective intervention that can be used on a community basis. Several studies have linked gardening leisure time activity and exposure to nature in reducing stress and anxiety and cognitive functioning among older adults with dementia type of impairments [13-15]. Several assisted living and memory care units have noted the benefits of using a small raised garden to expose residents to nature and gardening.

### Animal Assisted Therapy

Animal Assisted Therapy (AAI) is used in a variety of settings. Many institutions use dogs to help their patients through their ailments. In many memory and assisted living facilities, the use of canines or dogs has been shown to help older adults with cognitive impairments improve their quality of life and symptoms of memory impairment [4,5,16]. One study found that using a miniature horse can improve cognitive functioning in residents with cognitive decline [17]. Through the use of AAI, perhaps an animal can be a catalyst to improve cognitive functioning in those with cognitive impairments.

### Conclusion

These alternative and complementary therapies are just a tiny example of some of the alternative interventions that can be used in older adults with cognitive decline. It is hoped that the use of some of these therapies can help contribute to improving the issues associated with healthcare and caregiving in cognitively impaired older adults. What is not known from these therapies is the mechanism that causes the improvements in cognitive health. More studies need to be conducted to determine if one type of modality is better or if the therapy is dose-dependent. Alternatively, these alternative therapies are promising and give hope to improving the adverse outcomes associated with cognitive impairments and diseases.

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