

Massage for Seniors: What the Research Says

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As the number of seniors continues to grow, so does the number of articles on the potential benefits of massage therapy for this special population. And the number of seniors is still growing as the baby boomer generation begin turning 65.

The National Center for Health Statistics, part of the U.S. Centers for Disease Control and Prevention, reports that the proportion of the U.S. population aged 65 years and older is projected to increase from its current level of 12.9 percent to 19.6 percent by 2030. The number of people over age 65 is expected to double from 35 million to 71 million, and the number of people over age 80 is expected to grow from 9.3 million in 2000 to 19.5 million. As the baby boomers age, many of those who already use massage will continue to do so, while others may seek it out for the first time. What evidence is there that massage therapy can help with the common side effects of aging?

Research on Benefits of Massage

Several studies have investigated whether massage therapy can relieve some of the symptoms of two common conditions associated with aging: osteoarthritis and Alzheimer's disease.

Osteoarthritis: Massage therapy is a commonly used complementary therapy by older adults with osteoarthritis (OA). A 2001 survey conducted in the state of Washington found that 57 percent of the 122 respondents with diagnosed OA reported having used massage therapy within the last five months, more than chiropractic (21 percent) or over-the-counter medications and dietary supplements (17 percent). Seniors with more functional disability were more likely to use any complementary therapy compared to those with less severe symptoms. The implications are that clients seeking massage may be more affected by OA, and that how well they can perform activities of daily living could be a useful outcome measure for evaluating treatment effectiveness.

A more recent randomized controlled trial conducted by Perlman et al. compared eight weeks of massage therapy to a wait-list control for 68 adults between the ages of 55 and 75 with radiographically confirmed OA of the knee. Participants received an hour-long massage twice a week for the first four weeks of the study intervention, then once a week for the remaining four weeks. Therapists used a standard protocol incorporating effleurage, petrissage and tapotement, although the sequence of strokes was left to the judgment of the therapists.

The primary outcome measures were changes in the Western Ontario and McMaster Universities

Osteoarthritis Index(WOMAC) pain and functional scores, and the visual analog scale (VAS) for pain assessment. The WOMAC is a 24-item self-report questionnaire that assesses pain, stiffness and physical functional disability in patients with knee and hip OA using a 0 to 100 scale. A negative change in WOMAC scores from baseline indicates improvement of symptoms and limitation, where a positive change indicates deterioration of symptoms and limitation. There was no difference in scores for measures at baseline between the treatment and control group.

In the treatment group, scores for pain improved by 23 points compared to baseline, stiffness improved by 21 points and physical function disability by 20.5 points. No significant differences in any of the outcome measures were observed in the control group. These improvements largely remained at a 16-week follow-up. Because some participants dropped out of the study before completion, an intent to treat analysis was used, which takes this attrition into account.

The authors believe that this more conservative approach to the data analysis may underestimate the magnitude of the treatment effect size. To date, this is the only prospective trial evaluating massage for OA. While the results are positive and support the use of massage for OA, more research of the same caliber is needed to draw firm conclusions.

Alzheimer's Disease: There is a larger body of research, particularly in the nursing literature, on massage therapy and Alzheimer's disease. An early 1995 study tested brief hand massage and therapeutic touch as interventions to reduce agitation behavior in patients with dementia. While massage was more effective than therapeutic touch in producing a relaxation response, neither intervention reduced agitation behaviors. A subsequent study using slow-stroke back massage found that physical expressions of agitation such as pacing, wandering and resisting were decreased when slow-stroke massage was applied, while verbal displays of agitation, the most frequently cited form of agitation in community-dwelling individuals with Alzheimer's disease, were not reduced.

More recently, Hicks-Moore and Robinson used a repeated measures design to test the effectiveness of favorite music (FM) and hand massage (HM) in reducing agitated behaviors with 41 nursing home residents with mild to moderate dementia. Agitated residents were randomly assigned to either the treatment or control groups. Residents in the treatment group received each of three treatments, HM, FM, and both HMF, with each treatment lasting 10 minutes.

Residents in the control group received no treatment. Agitation was measured using the Cohen-Mansfield Agitation Inventory at three different intervals. The results suggested that FM and HM individually and combined were effective in significantly decreasing agitation immediately following the intervention, as well as one hour post intervention.

In a systematic review of nursing literature on massage for relaxation in older adults, Harris and Richards describe the cumulative results of six experimental studies and one qualitative study that investigated the effects of hand massage on relaxation among older people with dementia. The studies measured dependent variables for verbal agitation, non-aggressive agitated behaviors,

comfort and anxious behaviors.

All experimental studies of hand massage lasting from three to 10 minutes showed statistically significant improvements on dependent variables. The single qualitative study by Kilstoff and Chenoweth⁸ concluded that hand massage was a beneficial intervention for dementia. Overall, the studies on hand massage reported a consistent reduction in verbal aggression and nonaggressive behaviors in persons with dementia.

Some limitations should be noted. Many of the quantitative studies were limited by small sample sizes and lack of an adequate comparison group. Environmental factors such as room temperature and frequency of interruption in elder care settings are difficult to control and likely pose a source of bias. Taking these factors into consideration, the balance of the evidence is positive. As is common in much of the research on massage therapy, more high-quality studies are needed to confirm this conclusion.

Summary

Massage has a great deal to offer in ameliorating the aches and pains associated with aging. Along with exercise and NSAIDs, massage can reduce symptoms of common OA. For people living with Alzheimer's disease, massage is a low-risk and relatively low-cost intervention that can be easily taught to caregivers. Particularly with the concern over the long-term side effects associated with many of the medications used to manage behavior in patients with Alzheimer's disease, massage is a promising intervention that may reduce caregiver stress as well.