

Research on Music Therapy

Music therapy in moderate and severe dementia of Alzheimer's type: a case-control study.

Int Psychogeriatr. 2006 Dec;18(4):613-21. Epub 2006 Apr 18. Svansdottir HB, Snaedal J. Geriatric Department, Landspítali University Hospital, Reykjavik, Iceland.

BACKGROUND: Music therapy is a potential non-pharmacological treatment for the behavioral and psychological symptoms of dementia, but although some studies have found it to be helpful, most are small and uncontrolled. **METHODS:** This case-control study was carried out by qualified music therapists in two nursing homes and two psychogeriatric wards. The participants were 38 patients with moderate or severe Alzheimer's disease (AD) assigned randomly to a music therapy group and a control group. **RESULTS:** The study showed a significant reduction in activity disturbances in the music therapy group during a 6-week period measured with the Behavior Pathology in Alzheimer's Disease Rating Scale (BEHAVE-AD). There was also a significant reduction in the sum of scores of activity disturbances, aggressiveness and anxiety. Other symptoms rated by subscales of the BEHAVE-AD did not decrease significantly. Four weeks later the effects had mostly disappeared. **CONCLUSIONS:** Music therapy is a safe and effective method for treating agitation and anxiety in moderately severe and severe AD. This is in line with the results of some non-controlled studies on music therapy in dementia.

The effect of background stimulative music on behavior in Alzheimer's patients.

J Music Ther. 2007 Winter;44(4):329-43. Ziv N, Granot A, Hai S, Dassa A, Haimov I. Max Stern Academic College of Emek Yizre'el, Israel.

Previous studies have demonstrated the benefits of music therapy in Alzheimer's patients, focusing either on improvement of healthy cognitive and social skills, or reduction of agitation symptoms. The present study examined the effect of background music on both positive and negative behaviors, during a time in which patients were not occupied with any structured activity. Twenty eight participants were observed both with and without stimulative, familiar background

music. Results showed both a significant increase in positive social behaviors and a significant decrease in negative behaviors related to agitation when music is played. Results demonstrate the contribution of music to enhancing general positive functioning in elderly patients with dementia, and reducing negative behaviors typical of their condition.

Music therapy for dementia symptoms.

Cochrane Database Syst Rev. 2000;(3):CD001121. Koger SM, Brotons M.
Psychology, Willamette University, Willamette University, 900 State Street, Salem, OR 97302, USA.

BACKGROUND: While music/music therapy does not represent a treatment of dementia, its use is based on a possible beneficial effect on symptoms including social, emotional and cognitive skills and for decreasing behavioral problems of individuals with dementias. Thus, there are clear implications for patients' and caregivers' quality of life. However, quantification and documentation of the evidence of this effect is necessary. Professional music therapists are accountable for providing efficient, beneficial treatment. Furthermore, music therapists are responsible for assessing, designing and implementing music therapy treatments, monitoring client progress, and reformulating their practice according to data collected and new advancements in the field. If they wait until sufficient valid, empirical data on all aspects of a disability or music response are available before attempting to design a therapy session, they may well reach retirement age before even one client can be served. On the other hand, promulgating the efficacy of music therapy in general, or of specific music therapy techniques, in the absence of any substantiation other than intuition or tradition borders on professional recklessness. **OBJECTIVES:** To gather and evaluate the evidence for the effectiveness of music therapy for dementia symptoms. **SEARCH STRATEGY:** All available sources of references were searched in March 2000 for randomised controlled trials of music therapy used as an intervention in dementia. The search terms included 'controlled trial or study, music, therapy, dementia, Alzheimer's, cognitive impairment' and derivatives of these. **SELECTION CRITERIA:** The reviewers assessed the methodological quality of the studies available for inclusion. The criteria used are presence and adequacy of a control

condition, independent assessment of patients' performance (ie standardized ratings carried out by a person other than the music therapist) and the number of participants (no fewer than three). DATA COLLECTION AND ANALYSIS: No randomised controlled trials, or trials with quantitative data suitable for analysis were found. MAIN RESULTS: The research into music therapy to date has lacked methodological design rigour. However, the research evidence available provides sufficient grounds on which to justify further investigations into the use of music therapy in dementia patients. In this context, the reviewers discuss some of the issues and research from the studies that were considered for inclusion. REVIEWER'S CONCLUSIONS: This review was not able to identify reliable empirical evidence on which to justify the use of music therapy as a treatment for dementia. However, the evidence available suggests that music therapy may be beneficial in treating or managing dementia symptoms, and the predominant conclusion of this review is the highlighting of the need for better designed studies of the intervention.

Music therapy with imminently dying hospice patients and their families: facilitating release near the time of death.

Am J Hosp Palliat Care. 2003 Mar-Apr;20(2):129-34. Krout RE. Conservatorium of Music, Massey University, Mt. Cook, Wellington, New Zealand.

Hospice care seeks to address the diverse needs of terminally ill patients in a number of physical, psychosocial, and spiritual areas. Family members of the patient often are included in the care and services provided by the hospice team, and hospice clinicians face a special challenge when working with families of patients who are imminently dying. When loved ones are anticipating the patient's impending death, they may find it difficult to express feelings, thoughts, and last wishes. Music therapy is a service modality that can help to facilitate such communication between the family and the patient who is actively dying, while also providing a comforting presence. Music therapy as a way to ease communication and sharing between dying patients and their loved ones is discussed in this article. The ways in which music therapy can facilitate a means of release for both patients and family members in an acute care unit of a large US hospice organization are specifically described. Case

descriptions illustrate how music therapy functioned to allow five patients and their families to both come together and let go near the time of death. Elements to consider when providing such services to imminently dying patients and their families are discussed.

The effects of music therapy on the quality and length of life of people diagnosed with terminal cancer.

J Music Ther. 2003 Summer;40(2):113-37. Hilliard RE. Florida State University, Big Bend Hospice, USA.

The purpose of this study was to evaluate the effects of music therapy on quality of life, length of life in care, physical status, and relationship of death occurrence to the final music therapy interventions of hospice patients diagnosed with terminal cancer. Subjects were adults who were living in their homes, receiving hospice care, and were diagnosed with terminal cancer. A total of 80 subjects participated in the study and were randomly assigned to one of two groups: experimental (routine hospice services and clinical music therapy) and control (routine hospice services only). Groups were matched on the basis of gender and age. Quality of life was measured by the Hospice Quality of Life Index-Revised (HQOLI-R), a self-report measure given every visit. Functional status of the subjects was assessed by the hospice nurse during every visit using the Palliative Performance Scale. All subjects received at least two visits and quality of life and physical status assessments. A repeated measures ANOVA revealed a significant difference between groups on self-report quality of life scores for visits one and two. Quality of life was higher for those subjects receiving music therapy, and their quality of life increased over time as they received more music therapy sessions. Subjects in the control group, however, experienced a lower quality of life than those in the experimental group, and without music, their quality of life decreased over time. There were no significant differences in results by age or gender of subjects in either condition. Furthermore, there were no significant differences between groups on physical functioning, length of life, or time of death in relation to the last scheduled visit by the music therapist or counselor. This study provides an overview of hospice/palliative care, explains the role of music therapy in providing care, and establishes clinical

guidelines grounded in research for the use of music therapy in improving the quality of life among the terminally ill.

The effects of group music with movement intervention on agitated behaviours of institutionalized elders with dementia in Taiwan.

Complement Ther Med. 2006 Jun;14(2):113-9. Epub 2006 May 11. [Sung HC](#), [Chang SM](#), [Lee WL](#), [Lee MS](#). Tzu Chi College of Technology, Hualien, Taiwan. sung@tccn.edu.tw

BACKGROUND: Agitated behaviours are identified by caregivers as the most challenging in dementia care. Alternative approaches reducing occurrence of agitated behaviours and the need for chemical or physical restraints become valuable for institutionalized elders with dementia. **OBJECTIVE AND SETTING:** This study was to evaluate the effects of group music with movement intervention on occurrence of agitated behaviours of institutionalized elders with dementia in Taiwan. **METHODS:** A randomized controlled trial was used. Thirty-six institutionalized elders with dementia completed the study, with 18 in the experimental group receiving group music with movement intervention twice a week for 4 weeks and 18 in the control group receiving usual care without intervention. Modified Cohen-Mansfield Agitation Inventory was used to assess agitated behaviours at baseline, weeks 2 and 4. **RESULTS:** Agitated behaviours were significantly reduced in the experimental group following 4 weeks of group music with movement intervention compared to that of the control group ($p < 0.001$). **CONCLUSIONS:** Group music with movement intervention can be beneficial in managing agitated behaviors of those with dementia and should be incorporated into care routines in residential facilities.

Research on Art Therapy

A foot in the door: art therapy in the nursing home.

Am J Art Ther. 1991 Aug;30(1):2-3. Ferguson WJ, Goosman E. Wright State University, Dayton, OH.

Inclusion of art therapy in the residential nursing home and a day-care facility had positive effects on the elderly. Socialization, self-esteem, and memory retrieval were enhanced by the art experience. In addition, the staff and administrators of both the nursing home and day-care facility found art therapy to be valuable and arranged to continue the program. The funding agent for the pilot project was particularly interested in supporting a program that included an educational component, and the university recognized this program as an excellent training opportunity. The five art therapy interns gained experience in working with a population that will need increased professional services in the future, and the successful addition of part-time art therapists at the two pilot agencies will assure a continuation of intern training sites for art therapy students interested in gerontology. By developing sites for art therapy interns, we have opened the door to a method which will not only train professionals to work with older adults but will also offer job sharing between nursing homes. It has been suggested by the administrator of the nursing home in the program that we investigate the possibility of one art therapist serving two or three nursing homes on a part-time/full-time employment basis. Programs would then be affordable at most sites, and thus more people would be able to benefit from art therapy.

An innovative art therapy program for cancer patients

Can Oncol Nurs J. 2000 Fall;10(4):147-51, 152-7. Deane K, Fitch M, Carman M. Toronto-Sunnybrook Regional Cancer Centre, Ontario.

Art therapy is a healing art intended to integrate physical, emotional, and spiritual care by facilitating creative ways for patients to respond to their cancer experience. A new art therapy program was designed to provide cancer patients with opportunities to learn about the

McMichael Canadian Art Collection and to explore personal feelings about their cancer experience through combined gallery and studio components. The role of the facilitator was to assist in the interpretation of a participant's drawing in order to reveal meaning in the art. This paper presents patients' perspectives about the new art therapy program. Content analysis of participant feedback provided information about the structure, process, and outcomes of the program. Evaluation of the art therapy/museum education program demonstrated many benefits for cancer patients including support, psychological strength, and new insights about their cancer experience.

Education of creative art therapy to cancer patients: evaluation and effects.

J Cancer Educ. 2008;23(2):80-4. Visser A, Op 't Hoog M. Helen Dowling Institute, Centre for Psycho-Oncology, Utrecht, the Netherlands. adriaan.visser@planet.nl

BACKGROUND: The course Cancer and Creative Art offers cancer patients the possibility to cope with their illness through creativity and self-expression. **METHODS:** Five groups of 35 participants, predominantly composed of women with breast cancer, participated in an explorative evaluation and effect study; premeasures and postmeasures were applied. **RESULTS:** The course met the needs of participants that included personal growth and contact with fellow sufferers as well as exploration and expressing their emotions and coping with their feelings. The participants were satisfied with the organization of the course, but most felt that the sessions were too short and asked for more time for follow-up discussions. They indicated positive changes in coping with their emotions, the awakening of a process of "conscious living," and the development of creativity. Many of the participants felt the intake interview with a psychiatrist was not necessary. Measures taken before and after showed that the activities of daily living deteriorated due the course of the disease. However, the participants indicated that their quest for meaning in life increased after the course. Their mood did not change. The course also improved the general quality of life. **CONCLUSIONS:** Creative art therapy benefits the quality of life of cancer patients. Follow-up studies should provide more insight into the change process

during creative art therapy and its long-term effect on the quality of life for people with cancer.

Paintings and their progress by psychiatric inpatients within the concept of integrative art therapy

Wien Med Wochenschr. 2001;151(15-17):375-9. Steinbauer M, Taucher J.
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Integrative painting therapy is a therapeutic concept for the treatment of psychiatric patients. It combines medical and therapeutic treatment strategies. The drawing and painting group takes the central part of this type of therapy. Its main focus is to capture psychodynamic processes with "inner pictures". Due to the creative process of painting the psychodynamic process becomes visible and can subsequently be worked on. According to specific rules the pictures reflect the psychopathology of different psychiatric disorders as well as their development throughout the therapeutic process. The pictures also serve as a starting point for group-, single and family therapy. The patients quickly gain access to their emotions and realize possible conflicts, which form the basis of their psychodynamics. Progress throughout therapy becomes visible and can be documented with the pictures. The structured course of the painting sessions provides additional information. The integration of various aspects helps expand our diagnostic frame.

An innovative art therapy program for cancer patients.

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therapy program. Content analysis of participant feedback provided information about the structure, process, and outcomes of the program. Evaluation of the art therapy/museum education program demonstrated many benefits for cancer patients including support, psychological strength, and new insights about their cancer experience.

Art therapy with the frail elderly.

J Long Term Home Health Care. 1994 Spring;13(2):20-3. **Callanan BO.** South Oaks Psychiatric Hospital, Amityville, NY.

The use of art engages frail older persons in a unique way. Art therapists recognize the creative source in the elderly and strive to involve them in the creative process. The art therapist combines the media of the visual artist with assistance in art skills to enable the older person to make meaningful expressions of emotion despite deteriorating functional ability. Supportive and therapeutic art interventions augment the skills and assets that many older persons retain. Effective art therapy sessions may be brought to older persons in their homes or in the day programs they attend. Through art therapy, the frail elderly learn new ways to express and interpret life situations, to communicate perspectives and respond to the difficulties before them.

A foot in the door: art therapy in the nursing home.

Am J Art Ther. 1991 Aug;30(1):2-3. Ferguson WJ, Goosman E. Wright State University, Dayton, OH.

Inclusion of art therapy in the residential nursing home and a day-care facility had positive effects on the elderly. Socialization, self-esteem, and memory retrieval were enhanced by the art experience. In addition, the staff and administrators of both the nursing home and day-care facility found art therapy to be valuable and arranged to continue the program. The funding agent for the pilot project was particularly interested in supporting a program that included an educational component, and the university recognized this program as an excellent training opportunity. The five art therapy interns

gained experience in working with a population that will need increased professional services in the future, and the successful addition of part-time art therapists at the two pilot agencies will assure a continuation of intern training sites for art therapy students interested in gerontology. By developing sites for art therapy interns, we have opened the door to a method which will not only train professionals to work with older adults but will also offer job sharing between nursing homes. It has been suggested by the administrator of the nursing home in the program that we investigate the possibility of one art therapist serving two or three nursing homes on a part-time/full-time employment basis. Programs would then be affordable at most sites, and thus more people would be able to benefit from art therapy.

Art, dance, and music therapy.

Phys Med Rehabil Clin N Am. 2004 Nov;15(4):827-41, vi-vii. Pratt RR. Research & Development, Music Health Institute, 532 Colorado Avenue, Santa Monica, CA 90401 USA. rosalie65@hotmail.com

Art, dance, and music therapy are a significant part of complementary medicine in the twenty-first century. These creative arts therapies contribute to all areas of health care and are present in treatments for most psychologic and physiologic illnesses. Although the current body of solid research is small compared with that of more traditional medical specialties, the arts therapies are now validating their research through more controlled experimental and descriptive studies. The arts therapies also contribute significantly to the humanization and comfort of modern health care institutions by relieving stress, anxiety, and pain of patients and caregivers. Arts therapies will greatly expand their role in the health care practices of this country in the twenty-first century.

Balancing the focus: art and music therapy for pain control and symptom management in hospice care.

Hosp J. 1999;14(1):25-38. Trauger-Querry B, Haghighi KR. Hospice of the Western Reserve, Cleveland, OH 44119, USA.

Pain and symptom management are a major part of hospice care. Literature and direct experience suggest that pain can be resistant if psychological, emotional, or spiritual issues are not addressed. This article explains how art and music therapies can work in conjunction with traditional medical treatment of pain control in the hospice setting. The process of pain modulation through the use of art and music interventions is diagrammed and described. Brief clinical examples demonstrate the use of art and music therapies for pain reduction with a variety of hospice patients. Information regarding appropriate education and training necessary for art and music therapists to practice in their field is presented.

[Research on Massage Therapy, Reiki, Healing Touch](#)

An experimental study on the effectiveness of massage with aromatic ginger and orange essential oil for moderate-to-severe knee pain among the elderly in Hong Kong.

[Complement Ther Med.](#) 2008 Jun;16(3):131-8. Epub 2008 Mar 4. [Yip YB, Tam AC.yipvera@gmail.com <yipvera@gmail.com>](#)

OBJECTIVES: To assess the efficacy of an aromatic essential oil (1% Zingiber officinale and 0.5% Citrus sinensis) massage among the elderly with moderate-to-severe knee pain. **METHOD:** Fifty-nine older persons were enrolled in a double-blind, placebo-controlled experimental study group from the Community Centre for Senior Citizens, Hong Kong. The intervention was six massage sessions with ginger and orange oil over a 3-week period. The placebo control group received the same massage intervention with olive oil only and the control group received no massage. Assessment was done at baseline, post 1-week and post 4 weeks after treatment. Changes from baseline to the end of treatment were assessed on knee pain intensity, stiffness level and physical functioning (by Western Ontario and McMaster Universities Osteoarthritis index) and quality of life (by SF-36). **RESULTS:** There were significant mean changes between the three time-points within the intervention group on three of the outcome measures: knee pain intensity ($p=0.02$); stiffness level ($p=0.03$); and enhancing physical function ($p=0.04$) but these were not apparent with the between-groups comparison ($p=0.48$, 0.14 and 0.45 respectively) 4 weeks after the massage. The improvement of physical function and pain were superior in the intervention group compared with both the placebo and the control group at post 1-week time (both $p=0.03$) but not sustained at post 4 weeks ($p=0.45$ and 0.29). The changes in quality of life were not statistically significant for all three groups. **CONCLUSION:** The aroma-massage therapy seems to have potential as an alternative method for short-term knee pain relief.

The efficacy of acupressure for decreasing agitated behavior in dementia: a pilot study.

[J Clin Nurs.](#) 2007 Feb;16(2):308-15. [Yang MH, Wu SC, Lin JG, Lin LC.](#)

School of Nursing, National Yang-Ming University, Taipei, Taiwan, Republic of China.

AIMS AND OBJECTIVES: To investigate the efficacy of acupressure in decreasing agitated behaviors associated with dementia.

BACKGROUND: Agitated behavior is found in nearly half of all patients who have dementia. The presence of these behaviors increases the likelihood of injury, weakness, dehydration and lack of sleep and contributes to caregiver frustration and fatigue.

DESIGN: This pilot study was designed with subjects receiving both acupressure and the control treatment. Each subject served as his or her own control.

Subjects received four weeks of acupressure protocols; to avoid a carry-over effect there was a treatment-free period of one week.

Subjects then were visited by one of the investigators for a six-week period.

METHODS: Participants were recruited from a nursing home caring specifically for patients with dementia. Twenty of the 31 subjects (64.5 %) completed the study, while 11 were discharged or hospitalized.

All the subjects were assigned to an experimental protocol and had a six-week acupressure treatment program. Baseline data were collected in the first week. Individual treatment sessions began at the second week of the study and lasted 15 minutes, twice a day, five days a week for four weeks. After a treatment-free period of one week, all the subjects served as controls undergoing a four-week control protocol consisting of companionship and conversation.

RESULTS: Comparison between the control and experimental phases indicated significant differences between the two groups on all outcome measures (Cohen-Mansfield Agitation Inventory, daily agitation records about physical attack, verbal and non-verbal attack and non-physical attack) with better results found during the acupressure phase.

CONCLUSIONS: Acupressure is recommended as an efficacious and non-intrusive method for decreasing the agitation behaviors in patients with dementia.

RELEVANCE TO CLINICAL PRACTICE: Conducting the acupressure treatment takes 15 minutes. It could provide caregivers with a viable alternative to deal with patients with dementia.

Pilot study to test the effectiveness of Healing Touch on agitation in people with dementia.

Geriatr Nurs. 2006 Jan-Feb;27(1):34-40. Wang KL, Hermann C. Northern Arizona Healthcare System, Department of Veterans Affairs, Prescott, USA.

A pilot study was conducted to investigate the effects of Healing Touch (HT) on agitation in persons with dementia. Because of the restricted availability of patients, the main purpose of the study was to investigate the effectiveness of HT on dementia patients who demonstrated similar high levels of agitation as measured by the Cohen-Mansfield Agitation Inventory. Results indicated that agitation levels were significantly lowered and that HT is worthy of further study.

The effect of therapeutic touch on behavioral symptoms of persons with dementia.

Altern Ther Health Med. 2005 Jan-Feb;11(1):66-74. Woods DL, Craven RF, Whitney J. College of Nursing, University of Arkansas for Medical Sciences, USA.

BACKGROUND: Approximately 80% of nursing home residents who suffer from Alzheimer's disease and related dementia develop behavioral symptoms of dementia. Given the deleterious side effects of pharmacologic therapy in this population there is an urgent need for clinical trials of nonpharmacologic interventions. **OBJECTIVE:** To examine the effect of therapeutic touch on the frequency and intensity of behavioral symptoms of dementia. **METHOD:** A randomized, double-blind, three-group experimental study: experimental (therapeutic touch), placebo (placebo therapeutic touch), and control (usual care). Fifty-seven residents, aged 67 to 93 years, exhibiting behavioral symptoms of dementia, were randomized to one of the three groups within each of three Special Care Units within three Long-Term Care facilities in a western Canadian province. Behavioral observation was completed every 20 minutes from 8:00AM to 6:00PM for three days pre-intervention and for three days post-intervention by trained observers who were blind to group assignment. The intervention consisted of therapeutic touch given twice daily for 5-7 minutes for three days between 10:00AM and 11:30PM and between 3:00PM and 4:30PM (N = 57). The main outcome variable was overall behavioral symptoms of dementia, consisting of six categories of behaviors: manual manipulation (restlessness), escape restraints, searching and wandering, tapping and banging, pacing and walking, and vocalization. **RESULTS:** Analysis

of variance (ANOVA) ($F = 3.331$, $P = .033$) and the Kruskal-Wallis test ($\chi^2 = 6.661$, $P = .036$) indicated a significant difference in overall behavioral symptoms of dementia, manual manipulation and vocalization when the experimental group was compared to the placebo and control groups. The experimental (significant) was more effective in decreasing behavioral symptoms of dementia than usual care, while the placebo group indicated a decreasing trend in behavioral symptoms of dementia compared to usual care.

CONCLUSIONS: Therapeutic touch offers a nonpharmacological, clinically relevant modality that could be used to decrease behavioral symptoms of dementia, specifically manual manipulation (restlessness) and vocalization, two prevalent behaviors.

Using Reiki to decrease memory and behavior problems in mild cognitive impairment and mild Alzheimer's disease.

J Altern Complement Med. 2006 Nov;12(9):911-3. Crawford SE, Leaver VW, Mahoney SD. Passamaquoddy Tribe at Pleasant Point, Perry, ME, USA. phadrus@ptc-me.net

OBJECTIVES: This empirical study explored the efficacy of using Reiki treatment to improve memory and behavior deficiencies in patients with mild cognitive impairment or mild Alzheimer's disease. Reiki is an ancient hands-on healing technique reputedly developed in Tibet 2500 years ago. **DESIGN:** This study was a quasi-experimental study comparing pre- and post-test scores of the Annotated Mini-Mental State Examination (AMMSE) and Revised Memory and Behavior Problems Checklist (RMBPC) after four weekly treatments of Reiki to a control group. **SETTINGS/LOCATION:** The participants were treated at a facility provided by the Pleasant Point Health Center on the Passamaquoddy Indian Reservation. **SUBJECTS:** The sample included 24 participants scoring between 20 and 24 on the AMMSE.

Demographic characteristics of the sample included an age range from 60 to 80, with 67% female, 46% American Indian, and the remainder white. **INTERVENTIONS:** Twelve participants were exposed to 4 weeks of weekly treatments of Reiki from two Reiki Master-level practitioners; 12 participants served as controls and received no treatment. **OUTCOME MEASURES:** The two groups were compared on pre- and post-treatment scores on the AMMSE and the Revised Memory and Behavior Problems Checklist (RMBPC). **RESULTS:** Results indicated statistically significant increases in mental functioning (as

demonstrated by improved scores of the AMMSE) and memory and behavior problems (as measured by the RMBPC) after Reiki treatment. This research adds to a very sparse database from empirical studies on Reiki results. CONCLUSION: The results indicate that Reiki treatments show promise for improving certain behavior and memory problems in patients with mild cognitive impairment or mild Alzheimer's disease. Caregivers can administer Reiki at little or no cost, resulting in significant societal value by potentially reducing the needs for medication and hospitalization.

Therapeutic touch and agitation in individuals with Alzheimer's disease.

West J Nurs Res. 2008 Jun;30(4):417-34. Epub 2008 Feb 13. Hawranik P, Johnston P, Deatrich J. University of Manitoba, Canada. pam_hawranik@umanitoba.ca

Limited effective strategies exist to alleviate or treat disruptive behaviors in people with Alzheimer's disease. Fifty-one residents of a long-term care facility with Alzheimer's disease were randomly assigned to one of three intervention groups. A multiple time series, blinded, experimental design was used to compare the effectiveness of therapeutic touch, simulated therapeutic touch, and usual care on disruptive behavior. Three forms of disruptive behavior comprised the dependent variables: physical aggression, physical nonaggression, and verbal agitation. Physical nonaggressive behaviors decreased significantly in those residents who received therapeutic touch compared with those who received the simulated version and the usual care. No significant differences in physically aggressive and verbally agitated behaviors were observed across the three study groups. The study provided preliminary evidence for the potential for therapeutic touch in dealing with agitated behaviors by people with dementia. Researchers and practitioners must consider a broad array of strategies to deal with these behaviors.

Research on Acupuncture

Effect of acupuncture given at the HT 7, ST 36, ST 40 and KI 3 acupoints on various parts of the brains of Alzheimer' s disease patients.

Acupunct Electrother Res. 2008;33(1-2):9-17. Zhou Y, Jin J. Department of Neurology, Xuan Wu Hospital, Capital Medical University, Beijing, China.

In this study, we explore various regions of the brains of Alzheimer' s Disease (AD) patients before and after acupuncture treatment of acupoints in the brain in order to determine the effect, if any, of acupuncture on AD. Twenty-six patients with clinically-diagnosed AD underwent functional magnetic resonance imaging (fMRI) while undergoing acupuncture at the four acupoints of Shenmen (HT 7), Zusanli (ST 36), Fenglong (ST 40) and Taixi (KI 3). fMRI Block design paradigm was chosen by electroacupumcture interval stimulation, and the data of fMRI were analyzed by Statistical Parametric Mapping (SPM 99). The result demonstrated that there were right main hemisphere activations (temporal lobe, such as hippocampal gyrus, insula, and some area of parietal lobe) and left activated regions (temporal lobe, parietal lobule, some regions of cerebellum). The activated regions induced by these acupoints were consistent with impaired areas in brain for AD patients, which were closely correlated with the cognitive function (memory, reason, language, executive, etc.). The present study provided the strong evidence that acupuncture had a potential effect on AD, and in partial revealed the mechanism.

Observation on therapeutic effect of acupuncture combined with medicine on Parkinson disease

Zhongguo Zhen Jiu. 2008 Sep;28(9):645-7. Chang XH, Zhang LZ, Li YJ. The Second Clinical Medical School, Henan College of TCM, Zhengzhou 450002, China. xhchang123@126.com

OBJECTIVE: To observe therapeutic effect of acupuncture on Parkinson disease (PD). **METHODS:** Sixty cases of PD were randomly divided into 2 groups, an acupuncture plus medication group and a medication group, 30 cases in each group. The acupuncture plus medication group were treated with acupuncture at Shenting (GV 24), Baihui (GV 20), Sishencong (EX-HN 1), etc. and oral administration of

Madopa, and the medication group only with Madopa. Their therapeutic effect and scores of Parkinson disease function rating scale (modified UPDRS) were compared. RESULTS: The total improvement rate of 80.0% in the acupuncture plus medication group was significantly higher than 60.0% in the medication group ($P < 0.05$); the decrease of cumulative score of UPDRS in the acupuncture plus medication group was better than that in the medication group ($P < 0.05$). CONCLUSION: Acupuncture has a certain therapeutic effect on PD.

Clinical study on the therapeutic effect of acupuncture in the treatment of post-stroke depression

Zhen Ci Yan Jiu. 2007 Feb;32(1):58-61. He J, Shen PF. The First Affiliated Hospital of Tianjin University of Chinese Medicine, Tianjin 300193, China.

OBJECTIVE: To observe the therapeutic effect of "Xingnao Kaiqiao Zhenfa" (Acupuncture Technique for Restoring Consciousness) in the treatment of post-stroke depression. METHODS: A total of 256 stroke patients were divided into acupuncture group ($n = 180$, male 138, female 42) and medication group ($n = 76$, male 57 and female 19) according to their visiting sequence to our hospital. Acupoints used were Neiguan (PC 6), Renzhong (GV 26), Baihui (GV 20), Yintang (EX-HN 3) and Sanyinjiao (SP 6, the affected side) and the needles were retained for 20 min every time. Patients of medication group were asked to take Amitriptyline (50 mg/d at first, 200 mg/d). Acupuncture treatment was conducted twice daily, and after one month's treatment the therapeutic effect was evaluated. Self-Rating Depression Scale (SDS) and Hamilton Rating Scale for Depression (HRSD) were used to assess the patient's state of depression. RESULTS: After the treatment, of the 180 and 76 cases in acupuncture and medication groups, 31 (17.2%) and 13 (17.1%) were cured, 73 (40.6%) and 18 (23.7%) had a marked improvement in their depression state, 27 (15.0%) and 12 (15.8%) had an improvement, 49 (27.2%) and 33 (43.4%) failed, with the effective rates being 72.8% and 56.6% respectively. The markedly effective rate and the total effective rate of acupuncture group were significantly higher than those of medication group ($P < 0.05$). After the treatment, the total scores of SDS and HRSD and the severity index of two groups decreased pronouncedly in comparison with those

of their individual pre-treatment; and the therapeutic effects of acupuncture group were significantly better than those of medication group in reducing SDS, HRSD and severity index ($P < 0.05$). In addition, the decreased values of depression, pessimistic mood and irritability of acupuncture group were all bigger than those of medication group ($P < 0.05$). No significant difference was found between two groups in the decreased value of insomnia ($P > 0.05$).

CONCLUSION: "Acupuncture Technique for Restoring Consciousness" can effectively improve depression patients' symptoms and the therapeutic effect of acupuncture is markedly superior to that of medication for post-stroke patients.

[Research on Complementary Therapies](#)

Complementary therapy use by persons with multiple sclerosis: benefits and research priorities.

Complement Ther Clin Pract. 2008 Aug;14(3):176-84. Epub 2008 May 7. Esmonde L, Long AF. School of Healthcare, University of Leeds, Baines Wing, Leeds LS2 9UT, UK.

People with multiple sclerosis (MS) are commonly actively involved in self-care, with many accessing complementary and alternative medicine (CAM) to help in symptom management. To provide increased insight into benefits from CAM use and service user ideas over research priorities, a two-part study, involving a questionnaire and interactive workshop, was undertaken with attendees at a national Congress of the MS Trust in the UK. The six most used therapies were reflexology, massage, yoga, relaxation and meditation, acupuncture and aromatherapy. Each was rated by a quarter to two-fifths as 'extremely helpful'. Insight into the nature of the therapeutic benefit was provided in user comments. Despite the self-selected nature of the sample, the findings point to potential benefits of a set of CAM therapies in helping people with MS. More research on potential benefits of therapies was called for by participants and on the dynamics of the therapeutic effect.

Research on Aromatherapy

Efficacy of aromatherapy (*Lavandula angustifolia*) as an intervention for agitated behaviours in Chinese older persons with dementia: a cross-over randomized trial.

Int J Geriatr Psychiatry. 2007 May;22(5):405-10. Lin PW, Chan WC, Ng BF, Lam LC. Department of Occupational Therapy, Castle Peak Hospital, and Department of Psychiatry, Chinese University of Hong Kong, Hong Kong.

BACKGROUND: Agitated behaviours among persons with dementia are distressing to both patients and their caregivers. As pharmacological interventions may be limited by their potentially adverse effects, the use of complementary therapies for treatment of agitation has become more popular and aromatherapy is the fastest growing one. **OBJECTIVES:** This study investigates the effectiveness of *lavandula angustifolia* (lavender) in treating agitated behaviours of demented people in Hong Kong. **METHODS:** It was a cross-over randomized trial. Seventy Chinese older adults with dementia were recruited; half were randomly assigned to the active group (lavender inhalation) for three weeks and then switched to control group (sunflower inhalation) for another three weeks; the other half did the opposite. Clinical response was evaluated using the Chinese versions of Cohen-Mansfield Agitation Inventory (CCMAI) and Neuropsychiatric Inventory (CNPI). **RESULTS:** The mean CCMAI total scores decreased from 24.68 to 17.77 ($t=10.79$, $df=69$, $p<0.001$). The CNPI scores changed from 63.17 (SD=17.81) to 58.77 (SD=16.74) ($t=14.59$, $df=69$, $p<0.001$) after receiving Treatment A (*Lavandula Angustifolia*). There were no period and sequential effects noted. **CONCLUSION:** In summary, lavender is effective as an adjunctive therapy in alleviating agitated behaviours in Chinese patients with dementia. In a patient population particularly vulnerable to side effects of psychotropic medications, aromatherapy using lavender may offer an alternative option.

A controlled trial of aromatherapy for agitation in nursing home patients with dementia.

J Altern Complement Med. 2004 Jun;10(3):431-7. Snow LA, Hovanec L, Brandt J. Houston Center for Quality of Care and Utilization Studies, Health Services Research and Development Service, Michael E. DeBakey Veterans Affairs Medical Center, Houston, TX 77030, USA. asnow@bcm.tmc.edu

OBJECTIVES: Two controlled trials of aromatherapy to decrease agitation in persons with dementia have recently produced promising results. However, both studies combined the use of essential oils with massage. Thus, it is unclear if the effect of the aromatherapy intervention was the result of smelling or the cutaneous absorption of the oils. The purpose of this study was to determine whether smelling lavender oil decreases the frequency of agitated behaviors in patients with dementia. **DESIGN:** The study design was within-subjects ABCBA (A = lavender oil, B = thyme oil, C = unscented grapeseed oil): 4 weeks of baseline measurement, 2 weeks for each of the five treatment conditions (10-week total intervention time), and 2 weeks of postintervention measurement. Oil was placed every 3 hours on an absorbent fabric sachet pinned near the collarbone of each participant's shirt. **SETTING:** A long-term care facility specifically for persons with dementia. **PARTICIPANTS:** Seven agitated nursing home residents with advanced dementia. **MEASUREMENTS:** Agitation was assessed every 2 days using a modified Cohen-Mansfield Agitation Inventory. Olfactory functioning was assessed with structured olfactory identification and discrimination tasks, and with qualitative behavioral observation during those tasks. **RESULTS:** Split-middle analyses conducted separately for each patient revealed no treatment effects specific to lavender, no treatment effects nonspecific to pleasant smelling substances, and no treatment effects dependent on order of treatment administration. There were no differences between participants with more and less intact olfactory abilities. **CONCLUSION:** There is significant evidence in the neurologic and neuropsychologic literature that persons with dementia have impaired olfactory abilities. Concordant with this literature, this study found no support for the use of a purely olfactory form of aromatherapy to decrease agitation in severely demented patients. Cutaneous application of the essential oil may be necessary to achieve the effects reported in previous controlled studies.

Aromatherapy as a safe and effective treatment for the management of agitation in severe dementia: the results of a double-blind, placebo-controlled trial with Melissa.

J Clin Psychiatry. 2003 Jun;64(6):732; author reply 732. Ballard CG, O'Brien JT, Reichelt K, Perry EK. Wolfson Research Centre, Newcastle General Hospital, Institute for Ageing and Health, Newcastle upon Tyne, United Kingdom. c.g.ballard@ncl.ac.uk

BACKGROUND: Behavioral and psychological symptoms in dementia are frequent and are a major management problem, especially for patients with severe cognitive impairment. Preliminary reports have indicated positive effects of aromatherapy using select essential oils, but there are no adequately powered placebo-controlled trials. We conducted a placebo-controlled trial to determine the value of aromatherapy with essential oil of *Melissa officinalis* (lemon balm) for agitation in people with severe dementia. **METHOD:** Seventy-two people residing in National Health Service (U.K.) care facilities who had clinically significant agitation in the context of severe dementia were randomly assigned to aromatherapy with Melissa essential oil (N = 36) or placebo (sunflower oil) (N = 36). The active treatment or placebo oil was combined with a base lotion and applied to patients' faces and arms twice a day by caregiving staff. Changes in clinically significant agitation (Cohen-Mansfield Agitation Inventory [CMAI]) and quality of life indices (percentage of time spent socially withdrawn and percentage of time engaged in constructive activities, measured with Dementia Care Mapping) were compared between the 2 groups over a 4-week period of treatment. **RESULTS:** Seventy-one patients completed the trial. No significant side effects were observed. Sixty percent (21/35) of the active treatment group and 14% (5/36) of the placebo-treated group experienced a 30% reduction of CMAI score, with an overall improvement in agitation (mean reduction in CMAI score) of 35% in patients receiving Melissa balm essential oil and 11% in those treated with placebo (Mann-Whitney U test; $Z = 4.1, p < .0001$). Quality of life indices also improved significantly more in people receiving essential balm oil (Mann-Whitney U test; percentage of time spent socially withdrawn: $Z = 2.6, p = .005$; percentage of time engaged in constructive activities: $Z = 3.5, p = .001$). **CONCLUSION:** The finding that aromatherapy with essential balm oil is a safe and effective treatment for clinically significant

agitation in people with severe dementia, with additional benefits for key quality of life parameters, indicates the need for further controlled trials.

Lavender oil as a treatment for agitated behavior in severe dementia: a placebo controlled study.

Int J Geriatr Psychiatry. 2002 Apr;17(4):305-8. Holmes C, Hopkins V, Hensford C, MacLaughlin V, Wilkinson D, Rosenvinge H. University of Southampton, School of Medicine, Community Clinical Sciences Research Division, Memory Assessment and Research Unit, Moorgreen Hospital, Southampton, UK. ch4@soton.ac.uk

OBJECTIVE: To determine whether aromatherapy with lavender oil is effective in the treatment of agitated behavior in patients with severe dementia. **DESIGN:** A placebo controlled trial with blinded observer rater. **SETTING:** A long-stay psychogeriatric ward. **PATIENTS:** Fifteen patients meeting ICD-10 diagnostic criteria for severe dementia and suffering from agitated behavior defined as a minimum score of three points on the Pittsburgh Agitation Scale (PAS). **INTERVENTION:** A 2% lavender oil aromatherapy stream was administered on the ward for a two hour period alternated with placebo (water) every other day for a total of ten treatment sessions. **ASSESSMENTS:** For each subject 10 total PAS scores were obtained. Five during treatment and five during placebo periods. **RESULTS:** Nine patients (60%) showed an improvement, five (33%) showed no change and one patient (7%) showed a worsening of agitated behavior during aromatherapy compared with placebo. A comparison of the group median PAS scores during aromatherapy showed a significant improvement in agitated behavior during aromatherapy compared with placebo (median PAS scores 3 c.f. 4; Wilcoxon Signed-Ranks test $p = 0.016$ (one-tailed)). **CONCLUSIONS:** Lavender oil administered in an aroma stream shows modest efficacy in the treatment of agitated behavior in patients with severe dementia.

The effect of lavender aromatherapy on cognitive function, emotion, and aggressive behavior of elderly with dementia

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PURPOSE: This study was to develop an aromatherapy hand massage program, and to evaluate the effects of lavender aromatherapy on cognitive function, emotion, and aggressive behavior of elderly with dementia of the Alzheimer's type. **METHOD:** The Research design was a nonequivalent control group non-synchronized quasiexperimental study. Lavender aromatherapy was administered to experimental group I for 2 weeks, jojoba oil massage was administered to experimental group II for 2 weeks, and no treatment was administered to the control group for 2 weeks. Data was analyzed using the chi(2)-test, ANOVA, repeated measures of ANCOVA and ANCOVA in the SPSS program package. **RESULT:** 1. Experimental group I did not show significant differences in cognitive function in relation to the experimental group II and control group. 2. Experimental group I showed significant differences in emotion and aggressive behavior in relation to the experimental group II and control group. **CONCLUSION:** A Lavender aromatherapy hand massage program is effective on emotions and aggressive behavior of elderly with dementia of the Alzheimer's type.

An evaluation of aromatherapy massage in palliative care.

Palliat Med. 1999 Sep;13(5):409-17. Wilkinson S, Aldridge J, Salmon I, Cain E, Wilson B. Marie Curie Cancer Care, London, UK.

The use of complementary therapies, such as massage and aromatherapy massage, is rising in popularity among patients and healthcare professionals. They are increasingly being used to improve the quality of life of patients, but there is little evidence of their efficacy. This study assessed the effects of massage and aromatherapy massage on cancer patients in a palliative care setting. We studied 103 patients, who were randomly allocated to receive massage using a carrier oil (massage) or massage using a carrier oil plus the Roman chamomile essential oil (aromatherapy massage). Outcome measurements included the Rotterdam Symptom Checklist (RSCL), the State-Trait Anxiety Inventory (STAI) and a semi-

structured questionnaire, administered 2 weeks postmassage, to explore patients' perceptions of massage. There was a statistically significant reduction in anxiety after each massage on the STAI ($P < 0.001$), and improved scores on the RSCL: psychological ($P < 0.001$), quality of life ($P < 0.01$), severe physical ($P < 0.05$), and severe psychological ($P < 0.05$) subscales for the combined aromatherapy and massage group. The aromatherapy group's scores improved on all RSCL subscales at the 1% level of significance or better, except for severely restricted activities. The massage group's scores improved on four RSCL subscales but these improvements did not reach statistical significance. Massage with or without essential oils appears to reduce levels of anxiety. The addition of an essential oil seems to enhance the effect of massage and to improve physical and psychological symptoms, as well as overall quality of life.