

## Psychological Effects

**Alexandrovich, I., Rakovitskaya, O., Kolmo, E., Sidorova, T., Shushunov, S. (2003). The effect of fennel (*Foeniculum Volgare*) seed oil emulsion in infantile colic: a randomized, placebo-controlled study. *Alternative Therapies in Health and Medicine*, 9(4), 58-61.**

This double-blind, randomized, placebo-controlled trial evaluated the effectiveness of fennel seed oil emulsion in infantile colic. The results showed that the colic of 65% of the infants in the treatment group was eliminated compared with 23.7% in the control group; this difference was considered statistically significant. The study indicates that fennel seed oil emulsion is superior to placebo in decreasing intensity of infantile colic.

**Ballard, C.G., O'Brien, J.T., Reichelt, K., Perry, E.K. (2002). 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. *Journal of Clinical Psychiatry*, 63, 553-8.**

Ballard et al. (2002) conducted the first double-blind, randomized, placebo-controlled study to evaluate the efficacy of aromatherapy for the treatment of behavioral and psychological symptoms in dementia (BPSD). Seventy-one patients completed the trial. Patients who received aromatherapy experienced significant improvement in agitation and quality of life compared with the control group.

**Cooke, B., Ernst, E. (2000). Review: aromatherapy massage is associated with small, transient reductions in anxiety. *British Journal of General Practice*, Jan, 50, 493-6.**

Question: Does aromatherapy have an effect on clinical outcomes in patients with various conditions? Twelve studies were identified, and five studies reported that patients who received aromatherapy massage had reductions in anxiety or improvements in well-being immediately after the intervention. Five of the studies found a benefit of aromatherapy versus placebo or control. Conclusions are that aromatherapy has a small, transient effect on the reduction of anxiety immediately after administration. Individual studies suggest possible benefits of inhaled or oral aromatherapy for various conditions.

**Dunn, C., Sleep, J., Collett, D. (1994). Sensing an improvement: an experimental study to evaluate the use of aromatherapy, massage and periods of rest in an intensive care unit. *Journal of Advanced Nursing*, 21, 34-40.**

The experimental study randomly allocated 122 patients into groups to receive either massage, aromatherapy using lavender essential oil, or a period of rest. The assessment from 93 patients found no statistically significant differences in the physiological stress indicators or observed or reported behavior of patients' ability to cope following any of the three interventions. However, the patients in the aromatherapy group reported significantly greater improvement in their mood and perceived levels of anxiety than those in the other two groups.

**Hadfield, N. (2001). The role of aromatherapy massage in reducing anxiety in patients with malignant brain tumors. *International Journal of Palliative Nursing*, 7, (6), 279-285.**

Eight patients were recruited to the study, which was comprised of three methods of data collection: the measurement of physical parameters, the completion of Hospital Anxiety and Depression Scales (HADS), and semi-structured interviews. The results from the HADS did not show any psychological benefit from aromatherapy massage (AM). However, there was a statistically significant reduction in all four physical parameters, which suggests that AM affects the autonomic nervous system, inducing relaxation. This finding was supported by patients during the interviews stating they felt “relaxed” after AM.

**Hansen, T., Hansen, B., Ringdal, G. (2006). Does aromatherapy massage reduce job-related stress? Results from a randomized, controlled trial. *International Journal of Aromatherapy*, June, 16, (2), 89-94.**

The aim of this randomized controlled trial of 18 nurses was to test whether aromatherapy massage has a positive effect on job-related stress. The effect of the treatment was measured by Cooper’s Job Stress Questionnaire. The results from the study show a positive effect on a statistically significant level of aromatherapy massage in reducing work-related stress. Due to the selective and small sample size, further research is needed to draw stronger clinical implications.

**Itai, T., Amayasu, H., Kuribayashi, M., Kawamura, N., Okada, M., Momose, A., Tateyama, T., Narumi, K., Waka, Kaneko, U.S. (2000). Psychological effects of aromatherapy on chronic hemodialysis patients. *Psychiatry and Clinical Neurosciences*, 54, 393-7.**

Fourteen female inpatients with chronic renal failure were selected to participate in the study to evaluate the psychological effects of aromatherapy. Natural hospital smells and odorless conditions were systematically used as control periods. It was found that hiba oil aroma significantly decreased the mean scores of the Hamilton rating scale for depression (HAMD) and lavender aroma significantly decreased the mean scores of the Hamilton rating scale for anxiety (HAMA). There is no significant difference in the mean scores between those in an odorless condition and those in the control conditions.

**Lemon, K. (2004). An assessment of treating depression and anxiety with aromatherapy. *The International Journal of Aromatherapy*, 14, 63-69.**

Thirty-two subjects suffering from depression and/or anxiety were recruited from both inpatient and outpatient clinics of a hospital. Essential oils were selected according to physical and psychological symptoms, (e.g. anxiety, depression, headaches, and sleep problems). The test group showed a marked improvement compared to the control group. This study has statistically proven that the holistic use of aromatherapy had beneficial effect on clients who were more than mildly depressed or anxious.

**Lis-Balchin, M., Hart, S. (1997). A preliminary study of the effect of essential oils on skeletal and smooth muscle in vitro. *Journal of Ethnopharmacology*, 58, 183-7.**

This study examined the pharmacological activity of nine commercial essential oils. The results indicate that certain essential oils (clary sage, dill, fennel, frankincense, and nutmeg) produced a contracture and inhibition of the twitch response to nerve stimulation on skeletal muscle; thyme had a contracture without a change in the twitch response; lavender reduced the twitch response alone; and camphor increased the size of the twitch response. The findings supported previous work in showing that essential oils have selective actions on biological tissues, and the actions were not non-specific toxic actions on cell membranes.

**Lucks, B.C., Sorensen, J., Veal, L. (2002). Vitex agnus-castus essential oil and menopausal balance: a self-care survey. *Complementary Therapies in Nursing and Midwifery*, 8, 148-54.**

The authors surveyed 33 women who were in the peri-menopausal to post-menopausal transition and volunteered to participate the study. The returned three-page questionnaires from 23 women indicated that the use of Vitex essential oil (both leaf and berry) helped the majority of respondents relieve their menopausal symptoms to a sufficient degree. The leaf essential oil appears to have a broader range of actions, including addressing psychological aspects.

**Nguyen, Q., Paton C. (2008). The use of aromatherapy to treat behavioral problems in dementia. *International Journal of Geriatric Psychiatry*, 23, 337-346.**

Aromatherapy is an option that has been recommended for use in dementia. This review article summarizes 11 prospective randomized studies of aromatherapy use in behavioral and psychological symptoms in dementia (BPSD). They conclude that aromatherapy is a potentially useful treatment for BPSN, and recommend that this subject be studied further to understand the use of oil, optimum method of administration, efficacy, and potential side effects.

**O'Brien M.E. (1999). Aromatherapy: a definite mood booster... commentary on Schiffman S.S., Sattely-Miller E.A., Suggs M.S. et al. (1995). The effect of pleasant odors and hormone status on mood of women at midlife. *Brain Research Bulletin*, 36, 19-29. *Complementary Medicine for the Physician*, 4(4), 26-7.**

Two placebo-controlled studies were conducted to evaluate 56 women and 60 men in their middle-age in the Department of Psychiatry at the Duke University Medical Center. It was found that tension, depression, confusion, and mood disturbance were significantly alleviated in the presence of pleasant odors, with no effect on physiologic symptoms of menopause for women. For men, fragrance scores were also significantly better than with placebo for all six mood factors and mood disturbances. The findings suggested that the use of pleasing odors has potential therapeutic effects in coping with midlife.

**Wilkinson, S., Aldridge, J., Salmon, I., Cain, E., & Wilson. B. (1999). An evaluation of aromatherapy massage in palliative care. *Palliative Medicine*, 13, 409-17.**

Wilkinson et al. (1999) studied 103 patients to assess the effects of massage and aromatherapy massage on cancer patients in a palliative care setting. The authors found that patients with massage had a statistically significant reduction in anxiety. Massage with essential oils improve the outcome measurement of physical and psychological symptoms and overall quality of life.