Essential Oils for Pain Management Research Guide

Aromatherapy Massage for Neuropathic Pain and Quality of Life in Diabetic Patients

1. Gok Metin, Z., Arikan Donmez, A., Izgu, N., Ozdemir, L., & Arslan, I. E. (2017). Aromatherapy massage for neuropathic pain and quality of life in diabetic patients. *Journal of Nursing Scholarship, 49*(4), 379–388. https://doi.org/10.1111/jnu.12300

Summary: A randomized control study of 46 patients with diabetic neuropathy investigated the effects of an essential oil blend for neuropathic pain and quality of life. The experimental group of 25 participants received hand and feet massages three times weekly for four weeks using a 5% blend of rosemary *(Rosmarinus officinalis)*, geranium *(Pelargonium graveolens)*, chamomile *(Chamaemelum recutita)*, lavender *(Lavandula angustifolia)*, and eucalyptus *(Eucalyptus citriodora)* in coconut oil. Neuropathic pain scores significantly decreased, and the quality of life scores were significantly improved at week 4 in the massage experimental group as compared to the control group.

The Effect of Lavender Oil in Patients with Renal Colic: A Prospective Controlled Study Using Objective and Subjective Outcome Measurements

1. Irmak Sapmaz, H., Uysal, M., Taş, U., Esen, M., Barut, M., Somuk, B. T., … Ayan, S. (2015). The effect of lavender oil in patients with renal Colic: A prospective controlled study using objective and subjective outcome Measurements. *The Journal of Alternative and Complementary Medicine*, *21*(10), 617–622. https://doi.org/10.1089/acm.2015.0112

Summary: A double-blinded, randomized, placebo-controlled study was done to investigate the effects of diffused lavender *(Lavandula angustifolia)* for 100 patients experiencing kidney pain. Both groups received nonsteroidal anti-inflammatory drug (NSAID) intramuscular injections. Adjunct therapy for the control group diffused normal saline, while the experimental groups received 2% lavender diffusion. A visual analog scale showed no significant difference of pain at the beginning or 10-minute marker; significant reduction in pain, however, was noted at the 30-minute mark. Additionally, the study showed female participants had much lower pain than males at the 30-minute mark.

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The Effectiveness of Essential Oils for Patients with Neck Pain: A Randomized Controlled Study

1. Ou, M.-C., Lee, Y.-F., Li, C.-C., & Wu, S.-K. (2014). The effectiveness of essential oils for patients with neck pain: A randomized controlled study. *The Journal of Alternative and Complementary Medicine*, *20*(10), 771–779. https://doi.org/10.1089/acm.2013.0453

Summary: Sixty participants with a history of neck pain participated in a four-week randomized control study investigating the effects of a 3% topical cream with sweet marjoram (*Origanum majorana*), black pepper (*Piper nigrum*), lavender (*Lavandula angustifolia)*, and peppermint (*Mentha x piperita*). The control group used a topical cream without essential oils. Both groups applied a specified amount of cream to their necks once daily. Three of the four different metrics studied were significantly improved for the 30 participants in the experimental group.

The subjective pain score using a visual analog scale showed significant pain improvement in both the experimental and control groups. The other measurements, pain pressure threshold, ability to perform daily activities, and neck motion all showed significant improvement in the experimental group.

The Effectiveness of Nurse-Delivered Aromatherapy in an Acute Care Setting

1. Johnson, J. R., Rivard, R. L., Griffin, K. H., Kolste, A. K., Joswiak, D., Kinney, M. E., & Dusek, J. A. (2016). The effectiveness of nurse-delivered aromatherapy in an acute care setting. *Complementary Therapies in Medicine*, *25*, 164–169. https://doi.org/10.1016/j.ctim.2016.03.006

Summary: A large retrospective study of over 10,000 patients looked at results of using four different essential oils or combinations of them—lavender (*Lavandula angustifolia*), ginger (*Zingiber officinale*), mandarin (*Citrus reticulata)*, and sweet marjoram (*Origanum majorana*)—delivered via inhalation for symptoms of pain, anxiety, and nausea. The study showed that they generally all resulted in significant improvements, depending on the indication of use. Sweet marjoram showed an average pain reduction of greater than 3 points, while lavender and sweet marjoram resulted in the highest average anxiety reduction of 2.75 points.