

Aromatherapy Interventions in the Management of Agitation in Alzheimer's Dementia

Denise E. Couch-Gawley BA RN CHPN IAC

Introduction to Alzheimer's Disease

An estimated 30% - 50% of people over age 85 suffer from Alzheimer's disease – a progressive disease of the brain. Symptoms are subtle at first, ranging from the inability to recall familiar names and events to repeating something said several times in one conversation. More advanced symptoms include the reduced ability to learn new tasks, behavior problems such as depression, loss of spontaneity, anxiety, combativeness, disorientation, agitation, and even hallucinations. Eventually, virtually all mental function fails, resulting in dependence for all activities of daily living, including personal hygiene, walking, eating, dressing, and loss of speech.

Research shows that Alzheimer's disease is caused by damaged or destroyed nerve cells in key areas of the brain. Causes include 1) a reduction in acetylcholine, a neurotransmitter in the brain responsible for the transmission of nerve "signals," 2) the formation of neurofibrillary tangles (knots) and senile plaques (clumps) in the memory areas of the brain, found only upon autopsy of a suspected diseased brain, 3) heredity, though it is merely a risk factor determinant, not an inevitability, 4) toxic exposure to aluminum, 5) Vitamin E deficiency, and 6) free radical damage.

Symptoms noticeable at first to loved-ones of Alzheimer's disease may include memory loss or confusion, difficulty with verbal communication, disorientation as to person, place and/or time, difficulty with complex thought, decreased or poor judgment, forgetfulness, mood or behavior changes (including combativeness, agitation, wandering, paranoia, mood swings, anxiety, verbal abuse

of others, etc.), loss of appetite, sleep disturbances, and lack of interest in activities once enjoyed.

The Use of Lavender, Melissa and Bergamot

Essential oils contain many terpenes, which are rapidly absorbed through the lungs and cross the blood-brain barrier. In addition, many possess cholinergic activity, found to be the most effective compound in pharmaceutical treatments of Alzheimer's disease. Formal studies have been conducted on three essential oils that have shown particular promise in the reduction of agitation related to Alzheimer's disease – Lavender (*Lavendula officinalis*), Melissa (*Melissa officinalis*), and Bergamot (*Citrus aurantium*).

Lavender is the most well-known essential oil, commonly found in today's perfumes, air-fresheners, pot-pourri, and now even dishwashing detergent. Cultivated primarily in France and Bulgaria, it is non-toxic, non-irritating, non-sensitizing and can be inhaled directly, massaged into the skin, dropped into bath water, or vaporized into the air. The action of Lavender on the nervous system is determined by the state of the individual. It can be calming and sedating in times of stress, yet uplifting in times of depression or mental or physical exhaustion. Clinical research has shown Lavender to have anesthetic, antimicrobial, antispasmodic, and antidepressant actions in rodents. Lavender was once believed to prevent epilepsy, fainting, nervous palpitations, spasms and even colic. In the early part of the 20th Century, the French Academy of Medicine was known to have taken advantage of Lavender's antiseptic properties by swabbing it on wounds, treating sores, varicose ulcers, and various degrees of burns.

Melissa, commonly known as Lemon Balm or Bee Balm, is also cultivated in Bulgaria and used for its antibacterial, antidepressant, antispasmodic, sedative, and

hypotensive actions. Various aromatherapy publications have recommended Lemon Balm in the reduction of anger, over-stimulation of the nervous system, and for addressing symptoms related to crisis and trauma. While Lemon Balm is considered non-toxic, it can be an irritant to the skin and should not be used during pregnancy. It must be diluted properly prior to application to the skin, but can be inhaled directly or via diffuser or vaporizer. A word of caution, Lemon Balm (Melissa) is one of the most commonly "adulterated" essential oils on the market. This being said, it is paramount that therapeutic application of Lemon Balm be conducted using pure essential oil with full disclosure of distillation process and plant of origin.

Bergamot is a fruity essential oil usually produced by cold compression or sometimes distillation. It originated in Italy, but is now cultivated in the Ivory Coast, Guinea, Morocco, and Corsica. Known for its analgesic, antidepressant, and sedative actions, Bergamot is also widely used in the perfume industry and is found in Earl Grey tea. Like Lavender, it can act both as a sedative and an "uplifter." Caution should be taken with this oil, as it is phototoxic. Direct sun exposure to the skin after application should be avoided.

What Can a Caregiver Do to Help?

It is important for the caregiver of one with Alzheimer's disease to feel a sense of contribution to the wellness of their loved-one. The ability to provide non-pharmacologic comfort to an agitated dementia patient is immeasurable. The following are some easy suggestions for the use of Lavender, Lemon Balm, and Bergamot.

Most demented patients "sun-down" at a particular time in the evening. Sun-downing is when the symptoms associated with Alzheimer's disease are exacerbated. One method of easing agitation during this time would be to allow the patient to

inhale one drop each of Lavender and Bergamot essential oils from a cotton ball intermittently for about one half hour prior to the usual onset of “sun-downing.” This may provide the necessary level of calm prior, to allow for at least a decrease in agitation during the episode. This method can also be used to enhance overnight restlessness. The same cotton ball can be placed under the pillow of the patient during the night.

Many individuals with Alzheimer’s disease have the need to keep their hands “busy.” A muslin pouch could be filled with dried Lemon Balm herb sprinkled with 2-3 drops of Lavender essential oil. This would be a wonderful way to provide tactile stimulation with the benefits of aromatherapy to sooth agitation.

Diffusing essential oils is another easy and effective method for caregivers to provide a calming environment. Four drops of Lavender essential oil can be added to an aromatherapy diffuser. This method will allow for a continuous distribution of Lavender throughout a relatively large area, both subtly and effectively.

Aromatherapy jewelry is a lesser known way of distributing the inhalation benefits of any essential oil. Some pendants are made of terracotta, which will easily absorb 1-2 drops of essential oil and last throughout the day. Other jewelry pieces can hold cotton material inside. This cotton can be changed out frequently, allowing for changing essential oils based on need or preference. While safety measures must be taken into consideration with the wearing of jewelry, it could be an easy and ascetically pleasing way for loved-ones to benefit from essential oil therapy.

Aromatherapy massage is a technique that could prove successful in managing dementia-related agitation. However, with the elderly, *less is more*. While light message of the hands can certainly be calming to most, it is very easy to over-stimulate an individual with Alzheimer’s disease. Again, there is a very fine line between confusion and agitation. A blend of 3 drops of Bergamot and 2 drops of

Roman Chamomile in 2 tablespoons of grapeseed oil for a hand massage may not only help to ease agitation, but the two oils together are also considered a nice combination to combat loneliness.

Alzheimer's disease could easily be one of the most challenging and heartbreaking conditions that afflict not only our elderly, but a portion of our middle-age population. Medications used in the beginning for symptom management and to slow progression of the disease eventually become futile. Caregivers are ultimately faced with day to day symptom management and need alternative interventions to ensure the continued quality of life for the one they love. In being able to personally participate in the reduction of symptoms related to the disease, caregivers may also be able to embrace an increased feeling of control and relief from their own personal pain related to the disease progression.

Source: Battaglia, S. [The Complete Guide to Aromatherapy](#). 2003:169-233.