Clinical Aromatherapy Part I:
An Introduction Into Nursing Practice

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What Is Aromatherapy?

Aromatherapy is one of the fastest-growing complementary therapies used by nurses in acute-care and long-term care settings in the United States (Buckle, 2001; Thomas, 2002). Simply defined, aromatherapy is the controlled use of plant essences for therapeutic purposes (Ernst, 2001). Licensed and certified caregivers, such as massage therapists and estheticians, use aromatherapy regularly in their practices. Although interest in aromatherapy is increasing among nurses, most have not received specialized education in the selection, safe use, and clinical efficacy of essential oils. Risks are associated with the use of essential oils, and aromatherapists, healthcare providers, and patients must be made aware of the risks and practice safe use of essential oils. Aromatherapy generally should be considered an adjunctive treatment and not an alternative to conventional care.

This article provides an overview of aromatherapy, guidelines for selecting quality products, and the potential risks associated with essential oils. “Clinical Aromatherapy Part II: Safe Guidelines for Integration Into Clinical Practice” (see page 597) provides an overview of the qualifications necessary for aromatherapy practice, a brief summary of published data, and guidelines for safe integration into clinical nursing practice. Despite the growth of aromatherapy, a limited amount of published data defines dosing, methods of administration, and therapeutic outcomes of essential oils. The development of clinical practice guidelines provides a safe, standardized approach to the use of essential oils and aromatherapy within clinical practice settings.

What Terms Are Important to Know in Aromatherapy?

Essential oils are the aromatic essences of plants in the form of oil or resin. Essential oils are derived from plant leaves, stalks, barks, roots, flowers, fruits, or seeds. A carrier is the diluent used to dilute a concentrated essential oil for application. The neat is the direct application of the essential oil compound (essential oil plus carrier) to the skin. The note is the distinct aromatic variable of an essential oil used when blending combinations of different essential oil compounds. The top note is bright, the middle note is lingering, and the base note is grounding (see Figure 1).

How Did the Practice of Aromatherapy Begin?

The medicinal use of plant oils has an extensive history in ancient Egypt, China, the Far East, and Renaissance Europe (Thomas, 2002). The contemporary development of aromatherapy is attributed to René-Maurice Gattefossé, a French chemist who burned his hand and applied lavender oil to the site. The burn healed rapidly without scarring. The experience inspired him to study the possible therapeutic influence of plant oils. As a result, the term aromatherapy was coined in 1937 (Ernst, 2001). Essential oils can be applied directly to the skin through compresses or massages, inhaled through diffusers or steaming water, or added directly to bath water. At the present time, about 150 essential oils exist (Thomas).

What Is the Chemical Structure of an Essential Oil?

Essential oils have distinct complex structures and can be categorized by their proposed mechanisms of action. Terpenes have antiviral, antibacterial, and anti-inflammatory attributes. Esters have fungicidal and sedative attributes. Aldehydes have sedative and antiseptic properties. Ketones may be very

Figure 1. Terms to Know in Aromatherapy

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toxic but reportedly ease congestion. Alcohols generally are nontoxic with antiseptic and antiviral attributes. Phenols may irritate but reportedly can be stimulating to the senses. Oixdes can be used as expectorants.

How Are Oils Extracted From Plants?

Essential oils are extracted either by cold press, steam distillation (most common), solvent extraction, or carbon dioxide extraction. The extraction process creates a highly concentrated liquid while the plant’s complex chemical structure remains intact.

How Do Essential Oils Work?

The mechanism of action of essential oils begins with the olfactory sense (Ernst, 2001). After sensing a smell, the limbic system, known as the seat of emotions, is activated. The limbic system governs emotional response and also is involved with the formation and retrieval of learned memories. Essential oils also can be absorbed via the dermal route and subcutaneous fat into the bloodstream (see Figure 2). Oral entry into the digestive system is not recommended.

How Do I Know I Am Using a Quality Essential Oil?

Product quality is crucial when selecting essential oils used in aromatherapy. Products marketed as aromatherapy oils may be synthetic or tainted rather than pure. Product quality is affected by the growing season of the plant, health of the crop as a whole, pesticides or contaminants used on the plant, time of harvest, type of extraction, and final storage of the essential oil. Avoidance of fragrant oils is recommended because they may be synthetic, diluted, or tainted. Caution is suggested when purchasing essential oils marketed in clear bottles because light and heat can affect the quality of the products over time. Reputable marketing representatives should provide information about the quality of their products upon request.

Are Essential Oils the Same As Culinary Herbs?

Culinary herbs differ from essential herbs. Many essential oils are derived from the same plants as culinary herbs but are used in more concentrated forms. Toxicity and precautions are not the same because culinary herbs are used in small doses and are not concentrated.

What Kind of Carrier Can I Use?

Various carriers can be used with essential oils, such as water, oil, lotion, and salts. With water, an emulsifier is used to allow the essential oil to disperse. Examples of oil carriers include canola, safflower, olive, and sesame. Unscented lotions, creams, or aloe vera gels can be combined with essential oils. Salts that can serve as carriers include epsom, coarse, or kosher. Unscented liquid soaps also can be combined with essential oils, or bar soap can be made. Diffusers can be used to disperse oils in the air for inhalation (see Figure 3).

How and Where Do I Buy Essential Oils?

Choose a vendor with a trained staff that includes a certified aromatherapist who can answer questions regarding the safety, efficacy, and marketing processes of individual oils. Essential oils are measured in drops, as opposed to milliliters, which are used for other drugs sold in solutions.

What Are the Risks Associated With the Use of Essential Oils?

Possible contraindications to the use of essential oils are pregnancy, contagious disease, epilepsy, venous thrombosis, varicose veins, open wounds or skin sites, and recent surgery. Essential oils should not be administered orally or applied undiluted to the skin. Possible adverse events associated with the use of essential oils are photosensitivity, allergic reactions, nausea, and headache. Many essential oils have the potential to either enhance or reduce the effects of prescribed medications, including antibiotics, tranquilizers, antihistamines, anticonvulsants, barbiturates, morphine, and quinidine. Aromatherapists, healthcare providers, and patients should be made aware of these risks prior to the use of any essential oil products or compounds (Ernst, 2001).

Where Do We Go From Here?

Patient use of complementary and alternative medicine modalities in the United States is increasing. Oncology nurses must access credible information, resources, and appropriately credentialed practitioners in the areas of complementary, alternative, and integrative therapies (Oncology Nursing Society, 2002). Furthermore, oncology nurses must seek to establish evidence-based practice regarding safety, efficacy, quality of life, cost, ethics, and liability. Part II will describe the credentialing process for aromatherapists and holistic nursing, relevant clinical research regarding aromatherapy, and suggested guidelines for safe integration into nursing practice.

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