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## Establishing a Comprehensive Aromatherapy Program in Patient Care Settings



Victoria J. Boyce, MSN, RN, AHN-BC, Mary Natschke, RN, BAS, HNB-BC, IAC

Ascension St John Hospital, Detroit, Michigan

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### ABSTRACT

Since the profession began, nurses have sought to comfort through their healing presence and interventions. Clinical aromatherapy is an ancient practice finding new attention in modern-day health care to contribute to relief of symptoms of pain, anxiety and nausea. The use of complementary and integrative therapies is on the rise as clinicians and consumers seek to reduce the use of medications and the evidence-base for integrative therapies continues to expand. This article describes the development and introduction of a clinical aromatherapy program into a hospital system using a train-the-trainer model. Lessons learned from the process and future considerations are also discussed.

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### Key Practice Points

- Preparation to offer clinical aromatherapy in patient care settings includes finding or establishing clinical experts, review of the literature and benchmarking.
- Policies, procedures, educational content and competencies must be developed along with supply chain considerations.
- Preparing clinical nurses to offer aromatherapy as a non-pharmacological option for comfort and symptom management addresses national trends.

An increasing body of knowledge supports the use of therapeutic essential oils (EOs) in clinical settings as an adjuvant strategy for managing symptoms, such as pain, nausea, and anxiety, and for general well-being (Johnson et al., 2016; Joswiak et al., 2016; Maddocks-Jennings & Wilkinson, 2004). The National Association for Holistic Aromatherapy (NAHA) describes it as "...the art and science of utilizing naturally extracted aromatic essences from plants to balance, harmonize and promote the health of body, mind and spirit. It seeks to unify physiological, psychological and spiritual processes to enhance an individual's innate healing process." (NAHA, 2018). Robert Tisserand, founder of the Tisserand Institute, the leading organization of research and education in the art and

practice of aromatherapy, describes it as "A caring, hands-on therapy which seeks to induce relaxation, to increase energy, to reduce the effects of stress and to restore lost balance to mind, body and soul." (Tisserand, 1988, p. 1). The purpose of this article is to describe the development and implementation of a clinical aromatherapy program into a hospital system using a train the trainer model.

Historically and worldwide, the basis for the use of aromatherapy began with Florence Nightingale's Environmental Theory. Nightingale was the first nurse to use EOs in nursing care. She was responsible for applying lavender (*Lavandula angustifolia*) on the frontal region of the forehead of wounded soldiers during the Crimean War to calm them (Gnatta, Kurebayashi, Turrini, & Silva, 2016). In modern times we can appreciate "the oppressive and monotonous environments of hospitals and healthcare centers ... that can be changed through a sensory olfactory variation by using EOs" (Gnatta et al., 2016, p. 130).

Understanding the nature of EOs is a crucial step in educating practitioners to use safely and respectfully. EOs are extracted in several ways from plant parts such as stems, leaves, bark, flowers, roots, and fruits and are highly concentrated with potent chemical constituents. Most EOs have more than 100 constituents that give them the properties we seek for stress reduction, comfort, and well-being. Knowing the extraction process is fundamental in determining the quality of unadulterated EOs and preventing potential side effects. *Adulteration* means the intentional dilution or addition of synthetic solvents and residues that compromises the quality of the oils. The addition of these synthetics increase volume, thereby increasing the potential for profits (Tisserand & Young, 2014). The NAHA states that adulterated EOs increase the

Address correspondence to Victoria J. Boyce, MSN, RN, AHN-BC, 22101 Moross Ave., Detroit, MI 48236.

E-mail address: [Victoria.Boyce@ascension.org](mailto:Victoria.Boyce@ascension.org) (V.J. Boyce).

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likelihood of an adverse response. Individuals who use aromatherapy need to be aware of the safety issues involved to avoid potential adverse effects (NAHA, 2018).

Gas chromatography (GC) is one technique that identifies the specific constituents of an EO. It is often used in conjunction with a mass spectrometer (MS) to identify peaks that correlates to the amount of constituent in the oil. Although using a GC/MS will allow identification and quantity of most chemical components, it does not always identify other synthetics that may have been added to alter the EO (Buckle, 2015). Other factors that affect the quality of EOs include growing conditions such as soil type, climate, altitude, geography, harvesting time, use of pesticides and other chemicals, and genetics and temperatures of the distillation process (Battaglia, 2003; Cooksley, 2015). Choosing a reputable EO company that is willing to share the GC/MS and Safety Data Sheets (SDSs), along with the country of origin, botanical name, and batch number, is highly recommended. SDS are designed to provide clinical personnel with the proper procedures for handling or working with a substance. SDS includes information such as identifying the product, the manufacturer, composition of ingredients, hazard and first aid measures, storage, disposal, protective equipment, and spill/leak procedures. Every health facility is required to have SDSs on all their products and nurses using aromatherapy should be able to access them.

### Background

Ascension St. John Hospital is a 770-bed tertiary care hospital in Detroit, Michigan. Our ministry, Ascension Southeast Michigan, belongs to Ascension Health, the largest Catholic Health System in the country, whose mission is to provide spiritually centered holistic care to the communities we serve. Our nursing vision, philosophy, and professional practice model are based on the scope and standards and core values of holistic nursing (American Holistic Nurses Association, 2013), Watson's theory of human caring science (Watson, 2008), and Relationship Based Care (Koloroutis, 2004). We are affiliates of the Watson Caring Science Institute, recipients of the American Holistic Nurses Association's Institutional Excellence in Holistic Nursing Award, and have an extensive program to prepare nurses to become board certified in holistic nursing. To date, we have the largest number of board-certified holistic nurses in the nation. In our organization, nurses are encouraged to offer patients aromatherapy within the context of holistic nursing, creating a caring-healing environment that supports healing on all levels (Dossey & Keegan, 2016).

### Implementation

Work began to introduce clinical aromatherapy as an extension of holistic nursing practice to promote well-being and as a component of symptom management for acute and chronic pain, nausea, insomnia, and anxiety. Nursing leadership determined that a nurse would be sponsored to become certified in clinical aromatherapy through a program approved by the American Holistic Nurses Association to establish in-house expertise. The Institute of Integrative Aromatherapy was the national certification program used for clinical aromatherapy (<http://www.aroma-rn.com/>). This program provided in-depth knowledge of chemistry, safety, clinical protocols, and product selection and is considered an essential precursor to instituting a program in a hospital. Involvement in an aromatherapy certification program supports development of a network of connections with an external community of experts for consultation and sharing best practices.

Concurrent with the certification process, a small team was formed to develop the hospital program, which began with an extensive literature review to establish an evidence base for the

practices and program materials. Three other hospital programs that were known to exist at the time were consulted to determine the community standard of practice.

The policy and practice for aromatherapy is owned by the department of nursing at Ascension St. John Hospital in collaboration with an interprofessional team. It is an independent nursing function that does not require a prescriber order. Policy considerations included scope of patient populations, routes of administration, contraindications, selection of EOs and their indications for use, ordering and supply management, regulatory requirements and safety, and qualifications/training for those administering. Initially restricted to children older than age 3, as the program evolved the policy was expanded to encompass all children, including healthy newborns. Inhalation and topical routes of administration were selected for their ease and safety. Because EO molecules are very small and penetrate the bloodstream very quickly, inhalation through the nasal mucosa to the pulmonary system is rapid. In the clinical setting, inhalation is often the route of choice because it is readily available and easy to dispense. Topically, using a 1% or 2% dilution in a carrier oil or lotion, there is a delay—usually fifteen minutes to twelve hours—in reaching the bloodstream by the very nature of our skin. Variables include poor circulation, excessive cellulite or body fat, and the type of carrier oil used (Cooksley, 2015). *Carrier lotion* refers to the product used to dilute an EO before topical application and is preferably unscented and without parabens, phthalates, or synthetic ingredients. Topical application may be used for relaxing muscles and promoting circulation.

In holistic nursing, an aromatherapy hand massage is used as an opportunity to be present connecting with a patient through compassionate touch. Often people associate aromas with a positive experience or, alternatively, may wish to avoid an aroma based on its association with a memory of something unpleasant. Assessment incorporates this important aspect of including EOs preference in a patient plan of care. Regardless of the route of application, with our detailed education program and emphasis on safety we have had no adverse reactions to date. The policy is reviewed at least every 3 years and revised whenever indicated.

Based on the enthusiasm of individual clinical nurses, two pilot units were selected, the postanesthesia care unit and the emergency department. Staff were introduced to the use of aromatherapy at work for their own self-care and encouraged them to use it for their patients as well. The response from staff ranged from disinterest to curiosity to full support. Sharing experiences among colleagues expanded the use of oils through developing awareness of their clinical use and benefits. Through the pilot, it became apparent that because of the size of our history ministry, a single clinical aromatherapist would be unable to meet the demand to validate all nurses in aromatherapy competencies. A “train the trainer” model was envisioned to provide clinical nurses the skills to offer aromatherapy through a registered nurse (RN) validator workshop. Another discovery from the pilot was lack of an ordering process, which meant the unit supply of EOs was not always available. Last, there was no clear way to document the administration of aromatherapy in the medical record or to retrieve meaningful data. After a 2-month pilot, the program quickly expanded to include all nursing departments. The remaining six hospital sites and numerous ambulatory settings within the Ascension Southeast Michigan ministry were included once the workshop was developed so additional nurses were more readily available to validate nurses on their unit.

### Enculturating the Program

The Centers for Medicare and Medicaid Services (CMS) and The Joint Commission (TJC) provided opportunities to bolster the

program through their regulations. The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) question at the time, “During this hospital stay, how often did the hospital staff do everything they could to help you with your pain?” along with the introduction of language addressing non-pharmacologic approaches to pain by TJC supported the program and assisted in removing attitudinal barriers (CMS, 2018; TJC, 2014). TJC Standard PC.01.02.07.03 states, “Treatment strategies for pain may include pharmacologic, nonpharmacologic, or a combination of approaches” (TJC, 2017). Additionally, our nation's opioid crisis and intermittent national medication shortages have invited new ways of thinking about pain management. For example, nurses are encouraged to suggest nonpharmacologic measures as the first option for reports of mild pain or nausea (versus active vomiting), which may resolve the symptoms without medication.

To create a culture of aromatherapy use, the clinical aromatherapist created a variety of lotions and brought them to huddles, classes, workshops and meetings to expose staff to their use and benefits. For example, a basket of lotions is brought to the table of the command center during hospital regulatory surveys and to shared governance council meetings, where their use is encouraged. Our physician partners were receptive to the program. A series of small group meetings introduced the program, provided the opportunity to review selected evidence and the policy, address any questions, and experience the benefits of aromatherapy. We continue to meet with groups of incoming residents. Some of our interventional cardiologists request lavender in procedure rooms; other physicians have asked where to find “the physician order” so they can support the program even though an order is not necessary.

#### Selecting Oils and a Vendor

Our selection of EOs was chosen based on safety, research, and relevant chemical compositions that offered opportunity for decreased anxiety, pain, nausea, insomnia, and promotion of general well-being. Initially three EOs were chosen for their specific properties and minimal risk for potential side effects—lavender (*Lavandula angustifolia*), peppermint (*Mentha piperita*), and ginger (*Zingiber officinalis*). Within 2 years, sweet orange (*Citrus sinensis*) was added as an alternative to lavender for both adults and children. GM/MS reports and SDSs for each EO were provided by the vendor and are updated regularly. This information is also located on the hospital website.

Thoughtful evaluation of a variety of EO companies by the clinical aromatherapist resulted in selecting oils of high quality as well as ease of wholesale purchasing. Elements such as country of origin, distillation process, and the absence of synthetics or additional fillers that are common in EOs manufactured in the United States were explored (Cooksley & Kyle, 2007). The health system vendor approval and purchasing process was initially very challenging because the vendor lacked experience with the complex purchasing process and the hospital buyers had limited knowledge of the purchase of EOs. Distribution to the various departments became another hurdle because of the size of the health system and lack of an efficient process. Eventually, a year into ordering the oils, the process was effectively streamlined. A weekly order is sent to a single hospital purchasing agent who then creates one detailed order for the vendor. This process also eliminated special ordering fees for individual unit orders. The vendor ships to the appropriate hospital docks or outpatient settings for distribution.

#### Safety and Storage

Safety is by far one of the most important aspects of implementing an aromatherapy program in a clinical setting as well as

informing nurses who use EOs at home. In recent years there has been a reawakened awareness of the therapeutic use of EOs related to more consumer preferences toward natural products, growing use of aromatherapy at home, and increasing prevalence of lifestyle diseases. The “global aromatherapy market is expected to attain revenue of \$2.3 billion by 2025” (Mishra, 2018). Generally, public knowledge about the use of EOs is based on limited or inaccurate information from the Internet or social media platforms or from individuals who sell EOs with little to no knowledge of safety. It is apparent in the many stories shared in our programs and presentations that crucial safety knowledge is absent. Poison control centers across the country are reporting an increase in cases, especially among children, who often try to ingest EOs. Tennessee Poison Control reports the number of EO exposures doubled between 2011 and 2015, and 80% of those cases involved children. Children have also been poisoned by excessive or inappropriate application of EOs to the skin (Tisserand, 2018). Likewise, EOs can pose a toxic risk to household pets, especially to cats (Azzaro, 2015). Knowledge being essential to safe practice, our program emphasizes some key points and shares many stories of use and misuse:

- Assessment for sensitivities, allergies, and patient preferences is the first step in using EOs. It is no less important than a medication assessment. Also, if the patient is sharing a room with another patient, that patient too must be assessed for sensitivities and allergies because EOs are easily diffused in the air. There are some limited data on restricting peppermint in patients experiencing acute tachycardia, with a history of epilepsy, or receiving 5-fluorouracil chemotherapy, which are included in our policy as an extra precaution for our vulnerable populations (Tisserand & Young, 2014). Similarly, if a patient has constricted airway disease or asthma, he or she is exempt from using EOs in the clinical setting. Understanding there is evidence that certain EOs support the respiratory system, it is not within the scope of our program at this time. Most research reveals that it takes a large percentage of an EO over an extended period to develop untoward effects. Yet there may be some individuals who have immediate, severe reactions, and therefore the use of EOs presents an unnecessary risk to these populations.
- Keep out of reach of children and treat a bottle of EO as if it were a medication. Children by their very nature are inquisitive and often explore by putting things in their mouth. They are also more susceptible than adults to these compounds because of their size and metabolism.
- Do not take EOs orally. The controversial practice of ingesting EOs without knowledge of the chemical nature, properties, or potential adverse effects is risky and unsafe. It is recommended by experts that only practitioners who are qualified to diagnose, trained to weigh risks against benefits, and have a knowledge of EO pharmacology should prescribe oils for oral administration. Oral use of EOs is not within the scope of our program.
- Dilute essential oils using the hospital-approved, organic, unscented lotion before skin application. The skin does not respond well to concentrated EOs because they are drying, and the risk of adverse reactions is increased significantly. A 1% dilution of lavender or peppermint is used for very young, frail, or very elderly patients. A 2% dilution is appropriate for most adults.
- In the unlikely event of skin irritation such as redness, rash, or itching, wash affected areas thoroughly with soap and water and notify the primary care physician. If this occurs, it is entered into the event reporting system.
- Recognize when using EOs for inhalation that less is more. High concentrations of these potent EOs can often produce the opposite effect. For example, when a higher concentration of lavender meant for relaxation is used, the opposite effect may occur and the

patient may become agitated. Our policy states 1–2 drops on a cotton ball or 2 × 2 piece of gauze is sufficient and may be readministered each 12-hour shift or as requested by the patient.

- Avoid eye and mucous membrane contact with EOs that can cause irritation or even corneal tissue erosion. If this occurs, the eyes and mucous membranes are flushed with copious amounts of water. Another method, not readily available in most clinical settings, is wiping the eye with a vegetable oil to combine with the EO, then flushing with copious amounts of water.
- Keep the cap tightly closed after each administration to minimize the introduction of oxygen into the bottle. This oxidation affects the quality of the EO. Heat and sunlight also speed up oxidation and affect the chemistry and therapeutic potential (Cooksley & Kyle, 2007). EOs are stored in the locked medication room, visible for use. “Out of sight, out of mind” occurred when the oils were originally stored in the medication refrigerator.

*Clinical Competence*

A two-step process was developed to ensure clinical competency for the aromatherapy program. The first step was an online learning module that was developed integrating aromatherapy within the context of holistic nursing theory and practice. It included defining therapeutic EOs, assessment, safety, contraindications, clinical indications for use, inhalation and topical application, dilutions with lotion, and documentation. Before beginning the online process, the nurse was required to read two articles related to nursing theory and aromatherapy and review the aromatherapy policy and procedure. On completion of the module, a score of 90% is required on the posttest before going to step two. Step two occurs on the nursing unit with an RN aromatherapy validator and involves successful completion of items on a checklist to verify the nurse can administer aromatherapy according to policy (Fig. 1).

Ascension Southeast Michigan		
<b>Aromatherapy Competency Checklist for RNs</b>		
Name: _____ Unit/Dept.: _____ Date: _____		
RN Validator: _____		
<b>ACTIONS</b>	√ <b>MET</b>	√ <b>NOT MET</b>
1. <b>Verbalizes nurse preparation for aromatherapy intervention</b>		
2. <b>Describes assessment process for using aromatherapy</b>  🚩 Describes all potential contraindications for both Adult and Infant/Child 🚩 Describes process if a roommate is present		
3. <b>Selects appropriate oil and route for therapy</b>  🚩 Describes approved essential oils for Adult Inhalation 🚩 Describes approved essential oils for Adult Skin application 🚩 Describes approved essential oils for inhalation use with Infant/Children		
4. <b>Assembles equipment, DESCRIBES and DEMONSTRATES competency with the inhalation and skin application process for adult and infant/child:</b>  🚩 Adult inhalation preparation 🚩 Adult skin application preparation 🚩 Infant/Child inhalation preparation		
5. <b>Describes safety and handling of essential oils:</b>  🚩 Contact with mucous membranes and eyes 🚩 Essential oil bottle contamination 🚩 Airway reaction/irritation process 🚩 Safety with infant/child 🚩 Expiration date 🚩 Storage of essential oils		
6. <b>Describes components of a Healing Environment and other potential healing modalities.</b>		
7. <b>Evaluates intervention, patient response, EMR documentation and handoff reporting</b>  🚩 Patient responses, verbal and non-verbal 🚩 Caring Healing Therapy documentation 🚩 Pre/post assessments 🚩 Handoff reporting 🚩 Documentation in the Plan of Care		
Mary Natschke, RN, BAS, HNB-BC, IAC		
Ascension St John Hospital Clinical Aromatherapist		

**Figure 1.** Aromatherapy competency checklist for registered nurses (RNs).

# Comfort guide

We invite you to explore any of these options available to you that support comfort and healing during your hospital stay.

Please ask your caregivers for more information.

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## Relaxation breath exercise

1. Close your eyes or soften your gaze and slowly inhale through your nose, paying attention to the breath traveling down, expanding your abdomen, then into your lungs.
2. Slowly exhale through your mouth, imagining you are releasing any discomfort, anxiety, stress or fear. Allow all the air to leave your lungs.
3. Practice relaxation breathing for short periods of time until your body gets used to it. For best results combine with other comfort measures such as aromatherapy, guided imagery or visualization.

## Visualization

Close your eyes and let your worries drift away. Imagine your restful place. Picture it as vividly as you can — everything you can see, hear, smell, taste and feel. Visualization works best if you use as many sensory details as possible. For example, think about a dock on a quiet lake:

- See the sun setting over the water
- Hear the birds singing
- Smell the pine trees
- Feel the cool water on your bare feet
- Taste the fresh, clean air

Enjoy the feeling of deep relaxation that envelopes you as you slowly explore your restful place. When you are ready, gently open your eyes and come back to the present.

## Heat and cold compresses

Ask about the use of either heat or cold. Heat may be used for aching joints, cramping, spasms and other chronic pain. Heat causes the blood vessels to dilate, bringing more circulation to the area.

Cold is used in the first 48 hours after soft tissue injury if there is swelling. Leaving ice on too long can slow the healing process.



Figure 2. Comfort guide.

## Nature station/guided imagery channels

Explore the selection of Relaxation and Guided Imagery options on your TV. Our staff will help create a quiet space for you to rest and relax by turning lights off, closing shades, minimizing noise in the room, offering an eye mask and ear phones.

Guided imagery focuses your imagination to create calm, peaceful images in your mind, helping you to become deeply relaxed as you listen to spoken words. The more you listen to guided imagery, the more quickly your body will experience the relaxation response, so keep listening! There are over 30 Guided Imageries available or listen to the Nature Station, which has soothing music.

- 43 - Welcome Information Channel
- 54 & 55 - In-Room Symphony (music with nature scenes)
- 44-53 - Tigr Video-on-Demand (guided imageries)  
Use your phone to select

## Aromatherapy

Aromatherapy is the use of therapeutic essential oils to support relaxation and sleep, ease nausea and help reduce pain symptoms. These therapeutic essential oils are available through your nurse.

**Lavender:** Used for calming, stress reduction, insomnia, muscle spasms, headaches, anxiety, irritability and/or nausea.

**Ginger:** Used for digestive disorders (nausea, motion sickness, indigestion), may reduce pain and help with loss of appetite, congestion and sinusitis.

**Peppermint:** Used for indigestion, nausea and headaches. Peppermint's strong, minty aroma is used for pain relief, with antispasmodic, analgesic, anti-inflammatory properties.

**Sweet orange:** Used for anxiety, nervousness, and insomnia. Sweet orange is uplifting and helps settle the digestive system.

*Aromatherapy may be contraindicated for some conditions, such as pregnancy, asthma and COPD. Ask your nurse if it is appropriate for you.*

## Massage at the bedside

With your physician's approval, you may schedule a fee-for-service massage with a certified massage therapist from the Valade Healing Arts Center. Please call 313-647-3220 to schedule a 30-minute or 60-minute appointment.

34030-10300-200 (2/26/18)

## Pet therapy

A wet nose, a warm heart and a silky coat: Our four-legged team members are true miracles with paws as they visit patients, visitors and associates. They bring comfort, smiles and have a calming effect. These specially trained therapy/facility dogs have extensive socialization skills and are very calm. They are accompanied by a volunteer handler. To request a visit Monday-Thursday, please call Volunteer Services at 313-343-3680.

## Spiritual care

Our Spiritual Care department helps address meaning, purpose, love, belonging and forgiveness as a way of being. Chaplains are always available and offer services such as prayer, spiritual/emotional support, conflict resolution, listening, assisting with difficult decisions and being a spiritual resource in the time of crisis. They can be reached through a hospital staff member, or by simply calling the hospital operator at 313-343-4000.

## Quiet time

Each nursing unit has a designated quiet time during the day and evening when lights are dimmed and interruptions to our patients are kept to a minimum to promote rest and healing. During this time, we invite you to practice any of the comfort options described in this booklet.

## Movement and repositioning

Speak with your nurse about repositioning, walking and gentle stretching. Lying in bed or sitting in a chair for extended periods contributes to joint stiffness, muscle weakness and body aches. For patients with body pain or weakness, frequent repositioning promotes comfort. Encouraging movement helps improve circulation, bowel movements and muscle strength. Movement generally reduces the risk for complications such as "thromboembolism or" blood clots.

## Other comfort measures

The use of eye pillows, ear plugs, extra pillows, journaling, drawing and/or coloring can support your mental and emotional well-being. Consider bringing in your favorite music and headphones, crossword puzzles or magazines from home.

For more comfort suggestions, please contact your nurse.

Fig. 2. (continued).

### RN Aromatherapy Validators

To reach and validate thousands of nurses within the seven-hospital health system and outpatient areas successfully, the development of a workshop designed for RNs to become the clinical champions was necessary. These unit champions receive additional education in theory, research, chemistry, safety, and EO quality and properties, as well as attaining or verifying their own

competencies. During the workshop they use the checklist on each other to become comfortable with the feedback, coaching, and validation process with their colleagues. Continuing education credits are issued on completion, and validators are encouraged to add the certificate to their professional portfolio. They are expected to maintain a unit record of nurses who have completed the process, ensure that new nurses become competent, read and share quarterly updates with their team, troubleshoot concerns using

EOs, and monitor unit stock of EOs. Initially an 8-hour workshop, it was later reduced to 4 hours and still met all requirements to become the unit aromatherapy expert. This workshop is held twice a year and open to all RNs within the ministry. Ideally each department maintains a minimum of one nurse on each shift, and most nurse educators are validators to support the program.

### Documentation

The existing electronic medical record (EMR) documentation methods did not effectively capture the use of aromatherapy. Using our Shared Governance structure, a new form was developed called Caring Healing Practices to document all nonpharmacologic interventions nurses can offer. Space for pre- and postassessment scores are included for pain, anxiety, and nausea. One hour after the intervention, a “task” is flagged in the EMR as a reminder for posttreatment evaluation.

### Current State

Approximately 250 nurses are clinical aromatherapy validators throughout all patient care areas and innumerable clinical nurses are competent to offer aromatherapy to their patients. Executive nursing leadership has set the expectation that all nurses be able to use aromatherapy as a nonpharmacologic modality for symptom management. Quarterly communications are sent to validators for updates regarding policy, queries for barriers to practice, and opportunities to share stories, aromatherapy articles, or research and personal EO recipes. Validators role in maintaining unit competencies is reinforced. Validation for aromatherapy competency is built into the nurse residency program and on-boarding so that nurses are introduced to aromatherapy as they enter the organization. Content has been added to the holistic nursing intensive-core curriculum and preceptor meetings periodically address the use of aromatherapy.

Along with aromatherapy, there is an extensive menu of other nonpharmacologic comfort measures to offer patients. The Comfort Guide was created to educate patients and families about these opportunities. It is included in the welcome materials and on the patient television default screen, thereby empowering patients and families to partner in their care planning with the nurse. Selections included relaxation breathing, nature scenes and music, heat and cold compresses, pet therapy, massage at the bedside, movement and repositioning, spiritual care, and simply an eye pillow and ear plugs. This guide offers mind-body-spirit approaches for optimal health and healing along with their medical plan of care (Fig. 2).

### Outcomes

Aromatherapy is regularly used in combination with other pharmacologic and nonpharmacologic interventions; therefore outcomes specific to aromatherapy are not measurable. Initially there was no dedicated form or discreet data field within the EMR to capture exclusive EO use. Documentation was inconsistent and found in various locations within the chart. Data were not retrievable except via individual chart audits that became very time consuming and cumbersome.

Caregivers and patients expressed benefits from the use of aromatherapy. Outcomes are not always measured in audits and HCAHPS scores but rather in anecdotal stories of caring and connecting with our patients. For instance, a young man awaiting a magnetic resonance imaging scan as a prerequisite for the next day's laminectomy asked for a visit from the integrative practice nurse because of his high anxiety and lack of family or friend support. The brief visit by the nurse offered emotional support and

reassurance along with a cotton ball of lavender to take with him. The nurse went back the next day after his surgery to see how he was doing. He commented, “Even in the quiet, lonely hours of the night, I knew someone cared every time I smelled the lavender you left for me.” Nurses often do not see the incredible effects of the kindness and compassion they share with their patients. It is often what is felt by the heart of the receiver that makes the difference.

Since creating the Caring Healing Practices form, data retrieval has improved, although we continue to see inconsistent documentation. Nursing units are encouraged to pull monthly reports for their unit score cards and quarterly reports are given to shared governance, nursing leadership, and the Pain Advisory Group by the integrative practice nurse.

There was no discernable difference in HCAHPS scores related to pain after the introduction of aromatherapy. Intuitively, it seems the question “During this hospital stay how often did staff do everything they could to help you with your pain?” would evoke a highly positive response from the use of aromatherapy; however, the correlation could not be made. Although scores related to pain management hover around the target, several initiatives are in process at any given time, making it difficult to attribute score changes solely to the use of aromatherapy. Another factor that may have contributed is the relatively low participation rate in HCAHPS surveys, which may not have included patients to whom aromatherapy was offered.

### Lessons Learned

Starting with a limited number of oils for general use minimized “overload” while introducing this new modality. Because the oils had been selected for their properties to enhance general well-being and address common symptoms, it was not necessary to add other oils to the inventory. Job aids, such as badge cards, were developed to assist nurses to remember the indications for use of each EO (Fig. 3).

Several issues were not anticipated before starting the program. Developing a clear documentation system as part of the initial project would have facilitated the workflow for nurses as well as allowed for more consistent data collection to track use of aromatherapy. Considering accommodations for staff allergies had not been done until the issue arose with a nurse. Partnership with occupational health brought about inclusion of aromatherapy in the allergy screening and documentation process. If an allergy is verified, work accommodations are made.

Encouraging the use of EOs for self-care and experiencing their benefits makes caregivers more likely to recommend the oils for patients. In our level 1 emergency department, associates wore lavender on a cotton ball taped to the back of their identification badge long before they became comfortable offering aromatherapy to patients. There were nurses who stated they didn't believe in aromatherapy. This resistance was addressed by encouraging nurses to experience aromatherapy, reviewing selected evidence, and reminding the nurses it was not about their beliefs and preferences but the patients'. It is up to the patient to accept or decline the intervention and unethical not to offer the option. Some nursing units initially embraced aromatherapy by using it with commercially available electronic diffusers at their nursing stations; however, diffusers were later prohibited because of concerns about infection related to water-based diffusers. Enthusiastic users were also encouraged to consider that not everyone may enjoy aromatherapy for prolonged periods throughout their workday.

Sharing stories about aromatherapy promoted its use. Educating nurses to share patient preferences and how aromatherapy was used in handoff reports was helpful. Nurses who shared their success stories gave encouragement to others who had not yet tried

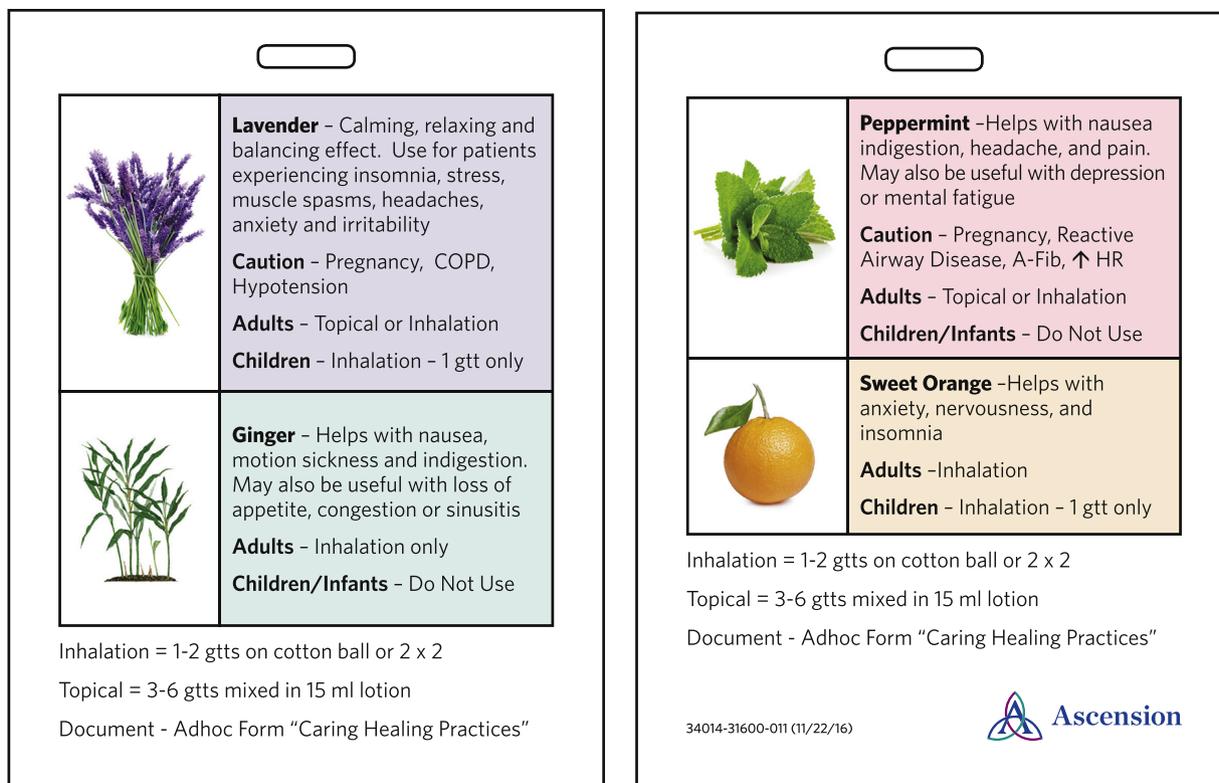


Figure 3. Badge card.

aromatherapy with their patients. One nurse made it her practice to bring lavender with her to the room as she gave a pain medication. This reassured patients that the aromatherapy was not taking the place of their medication but might make it more effective. Her practice was included as an exemplar in the validator workshop and is shared widely as nurses are validated. During an ondansetron (Zofran) shortage, ginger or peppermint were offered to six immediate postoperative patients, of whom five found relief and did not require any medication. This story is also widely circulated to illustrate the effectiveness of the EOs.

Refinements were necessary as the program evolved. For example, visibility of the EO bottles in the medication room serve as a visual cue to remind nurses to offer aromatherapy along with their pharmacologic interventions. When the oils were stored in the medication refrigerator, it required extra steps in preparation and they were less likely to be used. In that the oils are stable at room temperature for their expected period of use, refrigeration is not indicated. Close working relationships with the purchasing department are necessary. Monitoring the initial purchasing process revealed buying decisions had been made that were inconsistent with the originally agreed on process. In their effort to find a more cost-effective product, peppermint extract had been ordered rather than a peppermint EO.

Constant oversight of the safe use of EOs is essential to ensure nurses are operating within the scope of the policy. The RN validators on each unit are essential to support these efforts. It is necessary to reinforce that oils are not mixed, for example, or that a few drops of peppermint in an ostomy bag is prohibited.

#### Next Steps

The program has evolved since its inception, a yearly competency has been added. A module highlighting updates and safety

considerations was developed and is required for all nurses. Two additional individuals are becoming certified as clinical aromatherapists to support the program in the coming years. These additional nurses provide an expert resource in diverse clinical settings. They participate in policy and program review and development as well as participate in validator training sessions. They are board-certified holistic nurses who expressed interest in becoming clinical aromatherapists and whose leaders agreed to accommodate a limited number of hours within the scope of their current work to support the aromatherapy program.

We continue to explore ways to expand the program through process improvement projects and clinical research. As the organization becomes more enculturated in the safe use of EOs, we can begin to explore the addition of oils, especially for patients with respiratory diseases or at end of life. Data collection has been completed on a research study to determine whether the use of lavender in the postanesthesia care unit decreases pain and anxiety in post-laparoscopic surgery patients. To promote continuity of care, patient teaching materials are being developed to support those who wish to continue the safe use of aromatherapy after discharge. Content will include indications for use, vendor options with criteria for quality, safety and methods of administration, and storage and handling. This added component to our program addresses TJC standards related to educating the patient and family on discharge plans related to pain management (TJC, 2017).

#### Conclusions

Our clinical aromatherapy program is robust; it is well established and continues to grow. Since its inception there have been no reported adverse events, and only once were accommodations necessary because of the documented allergy of a nurse.

Aromatherapy is a safe, cost-effective, nonpharmacologic, evidence-based nursing intervention that can be offered in conjunction with other methodologies for relief of pain, nausea, and anxiety and to enhance well-being.

## References

- American Holistic Nurses Association & American Nurses Association. (2013). *Holistic Nursing Scope and Standards of Practice* (2nd ed.). Silver Springs, MD: American Nurses Association.
- Azzaro, K. (2015). Animal aromatherapy essential oil safety. Retrieved from <https://www.ashitherapy.com/animalaromatherapy.htm>. (Accessed 10 August 2018).
- Battaglia, S. (2003). *The complete guide to aromatherapy* (2nd ed.). Brisbane, Australia: The International Centre of Holistic Aromatherapy.
- Buckle, J. (2015). *Clinical aromatherapy essential oils in practice* (2nd ed.). St. Louis, MO: Elsevier.
- Centers for Medicare and Medicaid (CMS). HCAHPS: Patients' Perspectives of Care survey. Retrieved from <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/HospitalHCAHPS.html>. (Accessed 18 September 2018).
- Cooksley, V. (2015). *Aromatherapy: A holistic guide to natural healing with essential oils*. The Woodlands, TX: Floramed Publishing.
- Cooksley, V., & Kyle, L. (2007). *Certificate program in integrative aromatherapy: clinical and holistic professional training* (4th ed.). Boulder, CO: The Institute of Integrative Aromatherapy.
- Dossey, B., & Keegan, L. (2016). *Holistic nursing: A handbook for practice* (7th ed.). Burlington, MA: Jones & Bartlett.
- Gnatta, J., Kurebayashi, L., Turrini, R., & Silva, M. (2016). Aromatherapy and nursing: Historical and theoretical conception. *Journal of School of Nursing*, 50(1), 127–133.
- Johnson, J. R., Rivard, R. L., Griffin, K. H., Kolste, A. K., Joswiak, D., Kenney, M. E., & Dusek, J. A. (2016). The effectiveness of nurse-delivered aromatherapy in an acute care setting. *Complementary Therapies in Medicine*, 25, 164–169.
- Joswiak, D., Kinney, M. E., Johnson, J. R., Kolste, A. K., Griffin, K. H., Rivard, R. L., & Dusek, J. A. (2016). Development of a health system-based nurse-delivered aromatherapy program. *The Journal of Nursing Administration*, 46(4), 221–225.
- Koloroutis, M. (Ed.). (2004). *Relationship-based care: A model for transforming practice*. Minneapolis, MN: Creative Health Care Management.
- Maddocks-Jennings, W., & Wilkinson, J. M. (2004). Aromatherapy practice in nursing: Literature review. *Journal of Advanced Nursing*, 48(1), 93–103.
- Mishra, A. (2018). Trends in aromatherapy market by 2025 by production market analysis and regional market performance. Retrieved from <https://www.linkedin.com/pulse/trends-aromatherapy-market-2025-production-analysis-regional-mishra>. (Accessed 11 August 2018).
- National Association for Holistic Aromatherapy. (2018). Explore aromatherapy safety. Retrieved from [www.naha.org](http://www.naha.org). (Accessed 6 June 2018).
- The Joint Commission. (2017). R<sup>3</sup> Report: Requirement, rationale, reference. Retrieved from [https://www.jointcommission.org/assets/1/18/R3\\_Report\\_Issue\\_11\\_Pain\\_Assessment\\_5\\_30\\_18\\_REV\\_FINAL.pdf](https://www.jointcommission.org/assets/1/18/R3_Report_Issue_11_Pain_Assessment_5_30_18_REV_FINAL.pdf). (Accessed 18 September 2018).
- The Joint Commission. (2014). *Joint Commission Perspectives*, 43, 11.
- Tisserand, R. (1988). *Aromatherapy: To Heal and Tend the Body*. Wilmet, WI: Lotus Press.
- Tisserand, R. (2018). Webinar: Essential oil safety cutting through the noise. Retrieved from [www.tisserandinstitute.org](http://www.tisserandinstitute.org). (Accessed 29 March 2018).
- Tisserand, R., & Young, R. (2014). *Essential oil safety: A guide for health care professionals* (2nd ed.). Edinburgh, UK: Churchill Livingstone Elsevier.
- Watson, J. (2008). In *Nursing: The philosophy and science of caring* (rev. ed.). Boulder, CO: University Press of Colorado.