Development of a Health System-Based Nurse-Delivered Aromatherapy Program

Denise Joswiak, BSN, RN, HNB-BC, CA
Mary Ellen Kinney, BA, RN, CCAP
Jill R. Johnson, PhD, MPH
Alison K. Kolste, BS
Kristen H. Griffin, MA, MPH
Rachael L. Rivard, BA
Jeffery A. Dusek, PhD

Healthcare systems are increasingly looking to integrate aromatherapy (essential oils) as a safe, low-cost, and nonpharmacologic option for patient care to reduce pain, nausea, and anxiety and to improve sleep. This article describes the development and implementation of a healthcare system-wide program of nurse-delivered essential oil therapeutic interventions to inpatients throughout an acute care setting. In addition, we provide lessons learned for nursing administrators interested in developing similar nurse-delivered aromatherapy programs.

A growing number of medical care settings are implementing the use of integrative health and medicine (IHM) programs. Integrative health and medicine programs are the result of patients and healthcare providers advocating for more holistic, natural therapies to improve and maintain patient health and wellbeing during a hospital stay. Furthermore, IHM programs help healthcare systems provide safe, low-cost, and nonpharmacologic interventions in patient care that may also improve patient outcomes and patient satisfaction. These goals align with initiatives to achieve the Triple Aim of healthcare: improving the patient experience of care, improving health outcomes, and reducing per capita costs of healthcare.

This article describes Allina Health's nursing-led, system-wide program for providing aromatherapy to a large number of inpatients in acute care. Allina Health is a large not-for-profit health system based in Minneapolis, Minnesota. In response to needs of nurses, patients, and hospitals, the health system created an integrative health clinical service line in 2011. The presence of this service line ensured continuity of IHM processes throughout the health system. In 2012, with support from the integrative health service line, clinical aromatherapy became the 1st IHM modality that was made easily accessible for nursing staff to provide to inpatients as adjunctive therapy for reducing pain, nausea, and anxiety and improving sleep.

The purpose of this article is to describe the (1) development of a nurse-delivered aromatherapy program, (2) implementation of the service delivery system, and (3) lessons learned from the development and implementation processes. The goal of this article is to provide information on Allina Health's experience to nursing administrators who may be interested in developing similar nurse-delivered aromatherapy programs.

Establishing an Aromatherapy Program

Nurses and patients from several Allina Health hospitals had inquired about aromatherapy and other integrative therapy options. As such, in 2011,
2 Allina Health nurses, who are also certified aromatherapists, collaborated to lead the aromatherapy program. The goal was to create and maintain a safe and effective clinical aromatherapy program for Allina Health patients and clients through partnership, education, and research. The 2 nurses received certification in aromatherapy through a reputable institution that meets the standards for professional aromatherapy education. This training brought the highest level of knowledge and safety to the program, as well as credibility when interacting with nurses, physicians, and other professionals.

The lack of other documented models for developing and implementing health system–based aromatherapy programs necessitated dedicating significant hours to foundational details. The nurses worked on the development of the project approximately 1 day per week over a 1-year time period. The program foundation began with defining the scope and objectives of the project, determining budget requirements and project resources, and identifying and securing the support of stakeholders. The next steps included selecting the essential oils (EOs), establishing a supply chain, and consulting with key departments, including safety/risk management. Policies and procedures, nurse training, and patient education were produced. Finally, an interhospital system of establishing a uniform method of electronic health record (EHR) documentation was put in place.

**Holistic Nursing: A Foundation for the Aromatherapy Program**

Creation of the nurse-delivered aromatherapy program throughout Allina Health required consideration of the most appropriate integration model. To reflect the needs of nurses and patients, a holistic, patient-centered model was chosen. The patient-centered model integrates conventional biomedical and complementary modalities as part of its focus on prioritizing patients’ interests with shared decision making between patients and their providers. The provision of aromatherapy within a patient-centered model aligns with current nursing theoretical foundations, including those of Florence Nightingale, Martha Rogers, and Jean Watson, of promoting the environmental and sensory influences on health, establishing intentional and caring relationships, and recognizing the interrelatedness of patients and care providers.

**Selection of EOs, Application Methods, and Establishing a Supply Chain**

Essential oils were chosen based on peer-reviewed scientific research on the relevant chemical composition of oils that could safely address patient outcomes of decreasing pain, nausea, anxiety, and insomnia.

Aromatherapy reference books and experts, including E. Joy Bowles, were also consulted regarding chemistry and properties of the EOs under consideration. The final EO selections for the program carried low concern for adverse side effects. Because aromatherapy is a holistic, collaborative process, and the sense of smell is subjective, each EO was known to be effective in treating more than 1 common patient symptom, allowing patients a choice. The 4 EOs chosen were lavender (Lavandula angustifolia), mandarin (Citrus reticulata), sweet marjoram (Origanum majorana), and ginger (Zingiber officinale).

Three routes of application were chosen to be available to nurses: inhalation, topically through massage oil containing diluted EOs, and in bath salts for postpartum women. For inhalation specifically, the nurse aromatherapists chose to use inhalers, or aromasticks. Aromasticks were chosen because they are an inexpensive, safe, and simple vehicle for the nurse to provide the EOs, and they offer the patient a tool for self-care while in the hospital and after discharge. The cost of inhalers, massage oils, and bath salts was each less than $3.00 per application, making it a low-cost, potentially high-impact, intervention.

After choosing the EOs and application methods that would be incorporated into nursing practice, a local EO vendor was selected who supplied pure, unadulterated EOs and who furnished a gas chromatography/mass spectrometry (GC/MS) report for each batch of EOs. A GC/MS report records the percentages of the chemical components of the EO, ensuring that no harmful additives are present. Once the vendor was secured and a contract negotiated through the system’s legal department, a supply chain was engaged that ensured consistency throughout the system.

**Safety**

The patient safety/risk department provided guidance regarding required documentation to promote safety of the program and facilitate easy access to the information for the nursing staff. Before a product is added into the product line, it goes through a chemical identification process. The GC/MS reports provided by the vendor list the chemical components.

In addition to having the GC/MS reports for oil batches, the vendor also provided Safety Data Sheets. These were submitted to the patient safety/risk department and filed electronically on Allina Health’s local network for hospital staff to easily access. Sensitivities and spill instructions were also made available electronically for nurses to access in the event that a patient, nurse, or visitor experienced a reaction to the EOs or a spill occurred.

There were other safety considerations with regard to patient receipt of aromatherapy, and these
points were centrally emphasized in the training materials developed for nurses. First, dilution of EOs for topical application by massage was determined to be less than 3% by volume to avoid skin reactions and systemic toxicity. Second, certain EOs were avoided completely for the safety of pregnant patients. For example, peppermint was not selected to address nausea because authorities on EOs report that peppermint is considered a stimulant, and although risk is low, it is contraindicated in early pregnancy and other conditions. Finally, ingestion of EOs is not part of this hospital program and should be avoided except when a practitioner is qualified to prescribe oils for ingestion.

Storage
An important and practical issue of using EOs in the hospital setting is storage, ensuring ease of use and restricting access by unauthorized users. The Nurse Executive Council of Allina Health requested that the EO products be secured in a locked system. Within Allina Health hospitals, medications are stored and delivered through the medication delivery system Pyxis. The pharmacy was supportive of the aromatherapy program, but because it was not under their scope, aromatherapy products could not be stored in Pyxis. Instead, a key was kept in the Pyxis machine and a custom screen was created to record the nurse, EO, application route, and patient receiving aromatherapy. The key was used for the separate locked cupboard where the EOs were stored.

Policies and Procedures
An aromatherapy policy document was created to identify considerations in providing clinical aromatherapy safely to patients. The policy covers guidelines for provider qualifications, training requirements, and nursing and safety procedures. It states that aromatherapy is an independent nursing function and does not require a physician order. Within this policy, a clause was written that differentiates aromatherapy as a therapeutic intervention from synthetic fragrances addressed by Allina Health’s fragrance free policy. Collaboration with the legal department, risk management, the Allina Health quality council, and the safety council was part of the review and approval of the system-wide policy.

Implementation of a System-Wide Nurse-Delivered Aromatherapy Program

Nurse Training
Because aromatherapy was a new skill for most of the nurses in the healthcare system, it was determined that 1 hour of education would provide a minimum level of competency, knowledge, and skill for safely administering EOs. The extent of the training was determined to be consistent with the call by the Minnesota State Board of Nursing that “Nurses who employ integrative therapies in their nursing practice to meet nursing care needs and patient goals are held to the same accountability for reasonable skill and safety as they are with the implementation of conventional treatment modalities.”

Through collaboration with the Allina Systems Learning and Development department and Media Services, a 68-minute eLearning session was produced. The eLearning contained 10 modules explaining aromatherapy’s history, chemistry, safety, policy and procedures, nurse and patient resources, documentation requirements, scenarios with language on how to discuss EOs with patients, and a post-comprehensive assessment. The modules could be watched in 1 or multiple sittings. In total, 3,357 nurses completed the training between February 1, 2012, and June 30, 2014. Table 1 provides a summary of nurse training by hospital location and year of program. Quick reference cards with pertinent condensed information were created and made available to assist nurses as they began integrating aromatherapy into their nursing practice.

In the development of nurse training materials, the question of requiring mandatory training was discussed. Some nurses wanted to have the choice of not using aromatherapy in their clinical practice, and that request was honored. If nurses did choose to include aromatherapy in their practice, they were required to have completed the training. United Hospital, a tertiary care, metropolitan hospital of 392 beds, chose to make the training mandatory for all nurses. Leaders at United reasoned that mandatory training would provide knowledgeable, consistent care by nursing staff. At the remaining hospitals, the training was offered and promoted by nursing leaders but was not mandatory for all nurses.

Patient Education
In addition to nurse training and education, educational handouts were created for patients to provide an explanation of the specific EO therapy they were receiving. The handouts were written in partnership with the Allina Patient Education Department to supplement nurse-provided education. Handouts were translated into the major languages of Allina Health patients and are available online to be ordered or printed as nurses need.

Site Leads
A key component of the multihospital implementation was the creation of a collaborative group of site leads coming from participating hospitals to ensure
consistency of process. One nurse from each Allina hospital was recruited. The site leads became an ongoing resource for staff nurses in their hospitals, communicated with the project lead aromatherapists, and addressed implementation and ongoing issues at the point of the concern. Although the program fundamentals were consistent between hospitals, site leads became a familiar face of encouragement and informational support that created some flexibility to accommodate each unique hospital and the culture of the nursing staff. They proved to be invaluable to the success of the aromatherapy implementation.

Documentation
The health system’s information services department was consulted to build a new documentation tool in the EHR. Considerations for development were recording the use of the intervention, ease of use, and capturing the clinical outcomes data. The charting included the EO used, route of administration, patient indication, time delivered, preassessment, and post-assessment within 60 minutes of the intervention. Pain, nausea, and anxiety were assessed using a 0-to-10 numerical intensity rating scale. Although insomnia was an option for providing aromatherapy, an insomnia assessment was not created in the EHR.

The Allina nursing inpatient end-user group helped ascertain that the documentation met the nurses’ needs and was located in the most accessible place in the electronic chart. During a meeting with that group, nurses noted that there was an emphasis on pain in the EHR, with no acknowledgement or opportunity to chart easily on other aspects of wellness. As a result, they voted unanimously to create a pain, comfort, and well-being flowsheet to document, in part, aromatherapy delivery and patient outcomes, supporting a holistic view on nursing interventions.

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan acute care hospitals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abbott Northwestern Hospital (631 beds)</td>
<td>393</td>
<td>233</td>
<td>104</td>
<td>730</td>
</tr>
<tr>
<td>United Hospital (392 beds)</td>
<td>985</td>
<td>19</td>
<td>42</td>
<td>1,046</td>
</tr>
<tr>
<td>Mercy Hospital (254 beds)</td>
<td>330</td>
<td>143</td>
<td>107</td>
<td>580</td>
</tr>
<tr>
<td>Unity Hospital (175 beds)</td>
<td>402</td>
<td>40</td>
<td>29</td>
<td>471</td>
</tr>
<tr>
<td>Regional acute care hospitals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cambridge Medical Center (75 beds)</td>
<td>78</td>
<td>10</td>
<td>5</td>
<td>93</td>
</tr>
<tr>
<td>St. Francis Regional Medical Center (53 beds)</td>
<td>118</td>
<td>26</td>
<td>13</td>
<td>157</td>
</tr>
<tr>
<td>Owatonna Hospital (43 beds)</td>
<td>41</td>
<td>10</td>
<td>3</td>
<td>54</td>
</tr>
<tr>
<td>New Ulm Medical Center (35 beds)</td>
<td>76</td>
<td>8</td>
<td>1</td>
<td>85</td>
</tr>
<tr>
<td>Buffalo Hospital (32 beds)</td>
<td>1</td>
<td>53</td>
<td>32</td>
<td>86</td>
</tr>
<tr>
<td>River Falls Area Hospital (7 beds)</td>
<td>43</td>
<td>7</td>
<td>5</td>
<td>55</td>
</tr>
<tr>
<td>Total</td>
<td>2,467</td>
<td>549</td>
<td>341</td>
<td>3,357</td>
</tr>
</tbody>
</table>

Lessons Learned from Developing and Implementing the Aromatherapy Program
Despite widespread implementation and positive response from nurses, challenges remain and lessons have been learned through the development process.

Certification
It is the opinion of the authors that the aromatherapy program project leader should be a nurse, who is certified in aromatherapy, to ensure safety when creating an aromatherapy program for a healthcare institution. Certification training provides comprehensive knowledge of the chemistry, safety, and appropriate use of EOs for maintaining and improving health. The certified aromatherapist has access to current resources, research, and expertise available for problem solving and education.

Holistic Nursing Foundation
Offering aromatherapy within a holistic care model recognizes the interconnectedness of body, mind, emotion, spirit, and relationship with the unique individual. This approach to healing allows for aromatherapy to be a therapeutic modality addressing the whole person rather than another “pill” to try to fix a single isolated symptom.

Safety/Risk Management
In the deployment of aromatherapy across the health system, nurses had concerns regarding sensitivity to fragrance. A statement was created to differentiate a therapeutic intervention from a fragrance. To date, only 2 nurses have reported concerns regarding sensitivity of aromatherapy to the Allina Occupational Health office. As with all nursing interventions, if an individual exhibits sensitivity, a procedure...
is in place to address it. To date, no patient or visitor adverse reaction has been reported.

Stakeholder Relationships
When developing health system-wide policies such as this one, it is essential that all stakeholders are identified and brought into the process as early as possible. For Allina Health, it was discovered that the 1 department not informed and consulted in a timely manner was Occupational Health. Their voice was important, and it was late in the process when discussions with them took place. Relationships with stakeholders, nurses, and all interested partners were crucial to helping this project progress smoothly with great positive energy. Taking the time and respectfully collaborating are well rewarded.

Mandatory Versus Optional Training
Site leads voiced concerns that without mandatory training, there would be gaps in expertise and availability of aromatherapy on some nursing shifts, impacting continuity of care. Furthermore, nurses had difficulty finding an hour during regularly scheduled shifts for education, and as a result, the numbers of aromatherapy-trained nurses grew slowly. The authors believe that for the best outcomes, aromatherapy training for nurses should be mandatory for all nurses. In accordance with this viewpoint, in 2014, Unity Hospital switched from a nonmandatory to a mandatory training hospital.

Storage Policy
Locked storage of the aromatherapy products generated a barrier by adding time and effort to the process for nurses providing aromatherapy, and the hospital site leads asked to have the products unlocked. A collaborative decision was made that if a nursing unit had a high percentage of nurses who had completed the eLearning, products could be stored in an unlocked area, leaving little risk that untrained nurses would be delivering aromatherapy. It continues to be policy that nurses are required to complete the hour-long education before providing aromatherapy.

Conclusions
Aromatherapy is a safe, low-cost, and nonpharmacological option for patient care that may also improve patient satisfaction and outcomes. With support from Allina Health’s integrative health service line, clinical aromatherapy became the 1st IHM modality that was made easily accessible for nursing staff. Currently, after 28 months of a successfully run program, 3,357 nurses have been trained and have provided more than 25,000 therapeutic interventions to inpatients across 10 Allina Health hospitals. Furthermore, EHR data from this program suggests that nurse-provided aromatherapy improves pain, anxiety, and nausea (manuscript under review). The great success of this program means nurse training and aromatherapy delivery will continue to be offered across Allina Health.

References