



# Promoting the Use of Aromatherapy to Decrease Anxiety and Patient Perception of Pain During a Gynecologic Procedure: An Integrative Interprofessional Therapy Quality Improvement Intervention

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## BACKGROUND

- Gynecologic exams have been reported to be the most common cause of anxiety in the healthcare setting.<sup>6</sup>
- In the United States, 10.3% of women reported using an intrauterine device (IUD), which requires a gynecologic exam and procedure.<sup>1</sup> An IUD is a long-acting, small T-shaped medical device that is inserted into the uterus and has been found to be 99% effective in preventing pregnancy.<sup>1</sup>
- Many women report concerns related to the perceived pain associated with the procedure.<sup>5</sup> Mild to moderate discomfort has been reported by most women during IUD insertion.<sup>3</sup>
- Lavender aromatherapy has been found to promote relaxation and reduce pain; however, there remains a practice gap in consistently offering it as an integrative option in the healthcare setting.<sup>2,4,6</sup>

## PURPOSE

To implement a system for clinic staff and providers to promote, support, and document the use of lavender aromatherapy to reduce anxiety and pain perception as an option for patients experiencing an intrauterine device insertion.

## METHODS

### Setting:

- Gynecology clinic within a large midwestern tertiary healthcare system serving women throughout the adult lifespan.

### Interprofessional Team:

- Physicians
- Advanced Practice Registered Nurses
- Nurses
- Integrative Health Specialist
- Quality Improvement Advisor

### Interventions:

- Staff and patient aromatherapy education
- Inclusion of integrative support staff into the project team
- Lavender aromatherapy administered via a cotton ball with two drops of essential oil was made available at point of care
- Creation of guidelines for use and documentation

### Measurements:

- 10-point Likert pain scale administered post procedure
- Unique, specialized 5-point Likert anxiety scale administered pre/post procedure

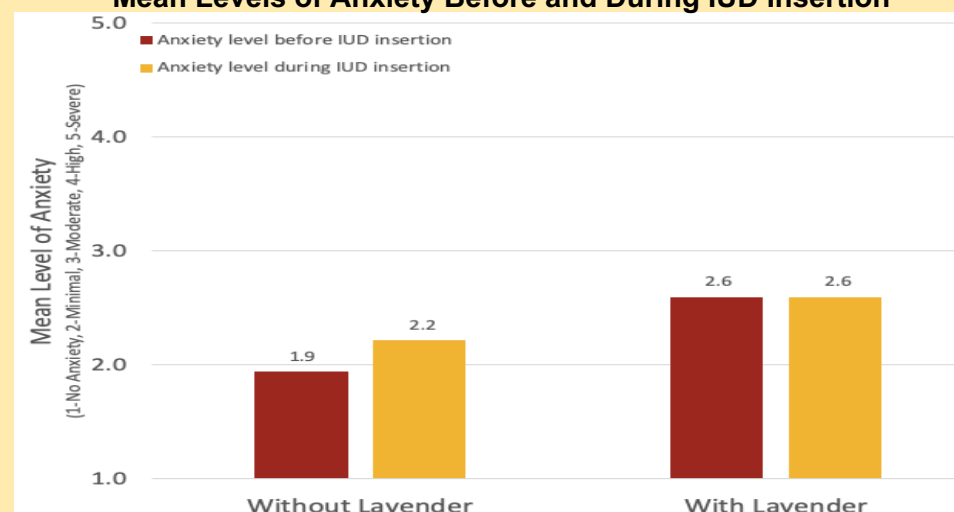
### Data Analysis:

- Data was reviewed via the electronic health record with secure passcodes. Chart audits examined pain and anxiety scores for patients presenting for IUD insertion. Pre/post implementation chart audits consisted of 36 and 47 patients respectively.
- Statistical analysis was done using the arithmetic mean and p-values to identify differences in pain and anxiety scores between those that used lavender aromatherapy and those that did not.

## RESULTS

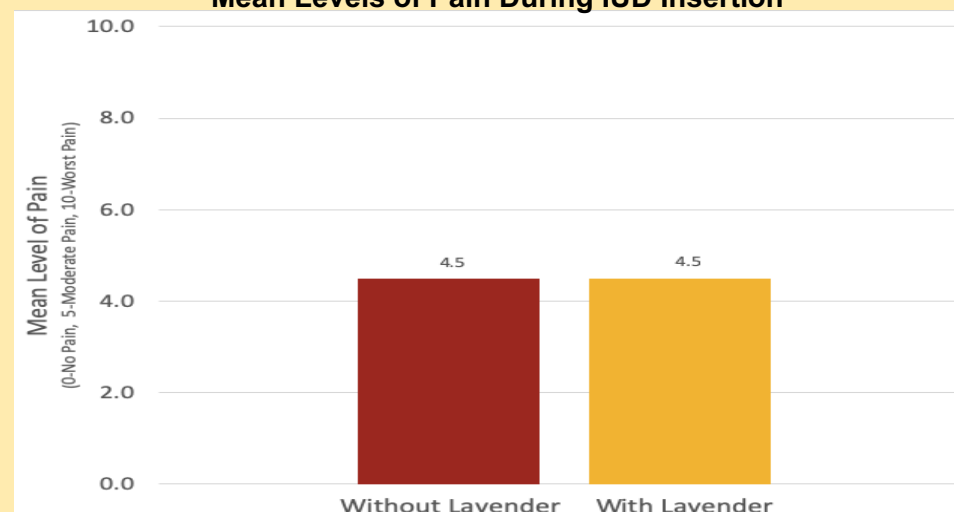
Outcome Objectives	Goal	Actual Result
Percentage of patients that were offered lavender aromatherapy prior to IUD insertion	50%	71%
Percentage of patients that consented to using lavender aromatherapy during IUD insertion	50%	93%
Percentage of times that the use of lavender aromatherapy was documented correctly	70%	79%

Mean Levels of Anxiety Before and During IUD Insertion



- Without the use of lavender aromatherapy, the mean level of anxiety before IUD insertion was 1.9 and rose to 2.2 during IUD insertion. With the use of lavender aromatherapy, mean levels of anxiety stayed the same before and during IUD insertion with a mean score of 2.6.
- Mean levels of anxiety were overall slightly higher in the group that utilized lavender aromatherapy compared to the group that did not use lavender aromatherapy; however, there was no statistically significant difference in the scores.

Mean Levels of Pain During IUD Insertion



- Mean levels of pain remained the same between the group that used lavender aromatherapy and the group that did not use lavender aromatherapy. The mean level of pain was 4.5 for both groups.

## DISCUSSION

- When patients were offered lavender aromatherapy during IUD insertion, they were told that lavender aromatherapy has been found to reduce both pain and anxiety levels. This may have led to an increase in anticipated pain and anxiety related to the IUD insertion.
- 93% of patients that were offered lavender aromatherapy wanted to use it, demonstrating the desire for an integrative approach for the management of pain and anxiety during IUD insertion.
- When reviewing patient surveys, distraction was an emerging theme that was revealed by patient comments. Of the patients that wrote comments, 36% of them stated that lavender aromatherapy acted as a “distraction” and/or helped take their mind off the IUD insertion and allowed them to focus on something else.

## CONCLUSION

This quality improvement (QI) project successfully implemented a clinic system to offer and document the use of lavender aromatherapy for IUD insertions based on evidence that supports the use of lavender aromatherapy for the reduction of both pain and anxiety. Although the QI project did not replicate evidence shown in previous research, lavender aromatherapy is a desired integrative self-selected and self-administered option that may reduce pain and anxiety scores while acting as a distraction to patients.



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