Title: Aromatherapy Reduces Anxiety During Breast Biopsy

Primary Author: Alisa Domb RN  
Co-Authors: Richard Gerkin MD, Paulla Miller  
Category II: Clinical Care, Treatments and Processing  
Subcategory: Complementary and Alternative Care

Objective: Evaluate the effectiveness of aromatherapy as a complementary/alternative modality (CAM) for the reduction of anxiety in women undergoing stereotactic and ultrasound guided breast core-needle biopsy (CNB).

Methods: A randomized, controlled, prospective study, with a pre/post test design in a convenience sample of women having CNB. Participants randomized to receive aromatherapy via inhalation and topical application with either; Lavender essential oil or essence of Jasmine. Anxiety measured using the State Trait Anxiety Inventory for Adults (STAI Form Y). State anxiety measured at baseline (State-1), prior to CNB and following CNB and clip placement mammogram (State-2). Trait anxiety measured at baseline. Descriptive statistics computed for all variables, student-t test used to determine group differences, Chi square for categorical data and multiple regressions to assess predictive variables for State 2 anxiety.

Results: One hundred and thirty five participants; 66 received Lavender, 69 Jasmine. Overall mean State-1 scores 40.9 (± 11.1), which was significantly higher than STAI-Y mean normative values of female working adults; State 35.20 (±10.61) p<.000, while State-2 score was 33.0 (±11.2), there was no difference between the groups, both elicited a significant reduction in state anxiety levels; Lavender -18.6% and Jasmine -19.6%. Mean Trait anxiety was 32.5 (±7.6) for both groups. The strongest correlations with State-1 were trait anxiety, marital status and age. Multiple regression revealed that State-1, trait anxiety, radiologist performing biopsy and result as the strongest predictors of State-2 anxiety (r=.652, p<.000). In a Chi square assessing post procedural anxiety, women with a diagnosed malignancy responded statistically differently (p<.05) to 10 of 20 questions on the State portion of the STAI-Y, in particular, those related to feeling tense, upset, worried, frightened and nervous, all of which were increased in this group.

Conclusions: Aromatherapy reduced anxiety in women having breast CNB. Results were comparative to other studies evaluating CAM for anxiety reduction during breast biopsy procedures. Further research is recommended to examine how anxiety is influenced through communication.