Category II, Subcategory G. Nursing, 2. Nursing Care of Breast Patients

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Study Title: A randomized placebo-controlled comparative trial of essential oils to reduce anxiety in women undergoing image-guided breast biopsies using the modalities of mammography, ultrasound and magnetic resonance imaging (MRI) guidance.

Women undergoing image-guided breast biopsies for suspicion of breast cancer are frequently anxious (Miller, et al, 2013). Aromatherapy has been used globally to reduce anxiety in various practice settings. There have been studies which suggest the use of aromatherapy helps to provide a calming atmosphere and reduce anxiety during exams and procedures (Branden, Reichow, & Halm, 2009; Fayazi, Abaashahi, & Rezaei, 2011). However, reported research involved administration of essential oils and inhalation by the patient for 10-20 minutes (Fayazi, et al., 2011).

Objective: The objective of this study is to determine the efficacy of using a convenient tab formulation aromatherapy as an intervention to reduce anxiety during image-guided breast biopsy.

This ongoing randomized placebo-controlled trial of 87 women measures a change in state anxiety between pre and post breast biopsy, in three groups. The three study groups are; A) lavender/sandalwood; B) orange /peppermint; and C) placebo control. Aromatabs™ are manufactured by Beekley Medical (Bristol, Connecticut); the tabs deliver consistent aromatherapy, or acts as a placebo control. The tabs are placed on the patient’s hospital gown.

The State-Trait Anxiety Inventory for Adults Self-Evaluation Questionnaire (STAI Form Y-1 State and Form Y-2 Trait; Spielberger, 1977), are completed pre-biopsy. The State Inventory Scale (measuring situational anxiety) is completed again post-biopsy. Physiological measures of blood pressure, pulse and respiratory rate are measured pre and post biopsy.

Results: 43 participants have been enrolled thus far. The analytical plan includes a descriptive analysis for demographics, with comparisons between groups. ANOVA analysis of pre and post State-Trait test scores will be conducted, as well as between groups ANOVA of test scores. Mean values for the physiological measures of anxiety (blood pressure, pulse, respirations) will be compared pre and post biopsy for each of the three groups. Between group comparisons of blood pressure, pulse and respirations will also be conducted.

Conclusion: Support for use of aromatherapy to enhance adaptation to anxiety, during image-guided breast biopsy, will be evaluated at the completion of this study.