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Investigating the Effects of Aromatherapy on Anxiety, Quality of Sleep, and Vital Signs on Hospitalized Patients of the Cardiac Care Units

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ABSTRACT

Introduction: Patients with cardiovascular disease experience symptoms such as anxiety, sleep disturbances, and vital signs within the first few days of admission to the cardiac care unit (CCU). There are non-pharmacological methods for relieving these symptoms; one is aromatherapy, which means using pure herbal essential oils in different ways. The present study aimed to investigate the effects of aromatherapy with the essence of Citrus aurantium and chamomile flowers on anxiety, sleep quality, and vital signs of hospitalized patients of the cardiac care units in Imam Reza Hospital in Sirjan in 2018-2019.

Methods and Materials: In this clinical trial study, 120 hospitalized patients in CCU were selected by convenience sampling and were randomly assigned to intervention and control groups using permutation blocks. In the intervention group, for three consecutive nights at 21:00, two drops of an aroma mixture were placed on an eye pad. The patient was instructed to hold the pad in the palm of their hand, approximately 5 cm from the nose, and take ten deep breaths. Then, the pad was placed at the patient's bedside until the morning.
The control group did not receive any intervention. Data collection tools included the Spielberger State-Trait Anxiety Inventory, St Mary's Hospital Sleep Questionnaire, and vital signs recording form. The questionnaires were completed in two stages, before and after the intervention, and Participants' vital signs were recorded before and every six hours during the intervention. Data were analyzed by SPSS software version 19 using chi-square, Fisher exact test, independent t-test, paired t-test, Mann-Whitney, Wilcoxon, and generalized estimation equations.

Results: There was a significant difference in the mean scores of state-trait anxiety between the control and intervention groups after the intervention (p = 0.001), as well as in the intervention group before and after the intervention (p = 0.001). In addition, a comparison of the median and interquartile range of sleep quality scores in all categories, except for the two categories of bedtime and wake-up time, revealed a significant difference between the control and intervention groups. A comparison of the scores in the intervention group before and after the intervention indicated a significant difference, with the exception of the aforementioned items (p = 0.001). The intervention also resulted in a significant difference in heart between the intervention group and the control group (p = 0.05). However, no significant difference was found in blood pressure and respiratory rate between the intervention and control group (p = 0.05).

Conclusion and Discussion: The findings suggest that aromatherapy can reduce anxiety, improve sleep quality, decrease heart rate, and stabilize blood pressure and respiratory rate.

Keywords: Anxiety, Aromatherapy, Cardiovascular diseases, Sleep quality

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