

Lavender's Aromatherapy to Decrease Anxiety Scale Patient with Pre Mastectomy Surgery

Rostime Hermayerni
Simanullang^{1*}, Afnizar
Wahyu¹, Jek Amidos
Pardede³ and Meriani
Herlina³

Abstract

Breast cancer is a group of abnormal cells in the breast that continue to grow multiply. Mastectomy is one of the options for surgical action in breast cancer. In patients who will undergo mastectomy, all breast tissue and axillary lymph nodes are suspected. Surgery will cause psychological disorders in the form of anxiety that can lead to complications during surgery. One way to reduce anxiety is through the provision of aromatherapy, especially aromatherapy lavender, which is known to be sedative. This quantitative study aims to determine the effect of aromatherapy on the scale of anxiety in pre-mastectomy patients in the surgical room of the Murni Teguh Memorial Hospital. The design in this study was to use a quasi-experimental research design with the method of one group pre and posttest without control. Determination of the sample size in this study using purposive sampling with 15 respondents. The instrument used to assess anxiety is the Hamilton Anxiety Rating Scale (HARS). Data from the research results were analyzed by statistical tests, namely the Wilcoxon test. The results showed that there was an effect of lavender flower aromatherapy on the decrease in anxiety scale in pre-mastectomy patients with a value ($p=0,001$) <0.05 , which means that after intervention the patient pre mastectomy experienced a decrease in anxiety scale than before intervention. The results of this study are expected to be used as an option for intervention by health workers especially the nursing profession to deal with patients' anxieties, especially in pre-mastectomy patients.

Keywords: Breast cancer; Mastectomy; Anxiety; Aromatherapy; Lavender flowers

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Introduction

Cancer is a frightening disease in the world especially in women as a cause of death, namely cancer of the cervix and breast cancer and many women who have low knowledge how to cancer prevention [1-11]. Breast cancer is one of the diseases that until now has not known for certain, the cause [5,12-27].

In the United States (US) 1 of 8 women (12.5%) in the course of his life will suffer from breast cancer or 30% of all cancers that exist in women. With a mortality rate number 2 on the U.S. women after the death due to lung cancer or 3.4%. Globocan 2008 in the U.S. the incidence of breast cancer 76.7/100.000/year with a mortality rate of 14.7/100,000 to/year [3]. While in Indonesia, the incidence of breast cancer ranked the first cancer in women, Globocan in 2008 noted the incidence of breast cancer 36.2/100.000/year, with a mortality rate of 18.6/100.000/year: who is in the advanced stage >50 [22,26,28].

In Indonesia, based on data from Basic Health Research (Riskesdas)

in 2013, the prevalence of tumors/cancer in Indonesia is 1.4 per 1000 population, or approximately 347.000 people and cancer in women is highest for breast cancer and cervical cancer [23,24]. In the City of Medan to the year 2016 was recorded 2.493 people who have checked the IVA and SADANIS, with the results of findings, that there were 110 positive cases of breast and cervix cancer [2,16,21].

Mastectomy is one option of surgery in the treatment of breast cancer [6]. Mastectomy is a surgical procedure the most and the second laparotomy, and it was noted that the mastectomy as much as 102 patients from January to November 2018 is already done [20]. In patients who will undergo mastectomy entire breast tissue and surrounding lymph nodes axillary lifted that cause the occurrence of anxiety as a potential complication of mastectomy [14].

Nursing care preoperative with right be the most important part

- 1 Sekolah Tinggi Ilmu Kesehatan Murni Teguh Medan Sumatera Utara, Indonesia
- 2 Universitas Sari Mutiara Medan Sumatera Utara, Indonesia
- 3 Universitas Imelda Indonesia Sumatera Utara, Indonesia

*Corresponding author:

Rostime Hermayerni Simanullang

hermayerni@gmail.com

Tel: 082276435232

Sekolah Tinggi Ilmu Kesehatan Murni Teguh Medan Sumatera Utara, Indonesia.

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which was very helpful to reduce or eliminate feelings of anxiety experienced by the patient mastectomy [2,4,7].

One of the widely used methods to overcome anxiety is by using aromatherapy, as like by using the extract of lavender flowers. Aroma therapy which is produced by flowers lavender is known to have the smell and benefits that are typical with a variety of benefits that is produced, one of which is to provide a calming sensation [4]. One of the therapy non-pharmacological which can be used is a complementary therapy. Current Complementary and Alternative Medicine (CAM) has been used and developed in the world of health. The type of CAM that used in the field of health, namely aromatherapy [9,13,15,22].

The results of the research conducted by [29] in the Central Surgical Installation of RSUD Dr. Moewardi Surakarta Indonesia, by using the HARS scale, shows the prevalence of anxiety disorders amounted to 8-12% of the subjects studied experienced a tension prior to surgery, such as feeling tense, easily startled, irritable and easily tired [30,31]. Previous research shows that there is influence of the aromatherapy of lavender flowers with a decrease in maternal anxiety pre surgery Caesarea at the maternity clinic before doing surgery [15].

Materials and Methods

This study used a quasy experimental design with pretest-posttest design. The technique of sampling was done at random, data collection using research instruments, quantitative data analysis statistics with the aim to test the hypothesis that has been set [25].

This research was conducted in Murni Teguh Memorial Hospital, which is a referral hospital that is centered on the field of oncology and cardiovascular. Consuming of data is done in the surgical room floor 3 and 8 Murni Teguh Memorial Hospital in February - April 2019. The study population was all patients who will undergo surgery mastectomy as many as 50 people. Determination of the amount of the sample in this study using the formula Nursalam 20% - 30% of total population = 15 people intervention group and 15 people control group [17], with purposive sampling techniques. Inclusion criteria: patients pre-mastectomy with an age range of 26 to 65 years and older, women and men, with a range of anxiety mild and moderate as well as the general state of a good and fully conscious and cooperative and able to work well to research. While the criterion exclusion: patients with scale heavy anxiety and panic, there is a history of Mastectomy, the patient is hypersensitive to the scent of lavender flowers, the presence of disorders of smell and with the skin hypersensitive to the flowers of lavender.

In this study, before the intervention, the first patient to fill out sheets of approval or informed consent as a respondent and researcher explained the purpose of the research to be conducted, if willing, then will sign the sheets for approval. After completion of the measurement Scale of patient anxiety using a scale Hamilton Rating For Anxiety (HARS), which has been made in the form of a questionnaire. Patients were questioned by researcher in accordance with the sheet observed that measured from the respondents with the score as follows: Score 0=no symptoms; 1=appear 2 symptoms; 2=appears more than 2

symptoms; 3=appeared more than 3 symptoms, and 4=appear all of the symptoms. With a total score; No anxiety; <14; Mild Anxiety: 14-20 and Moderate Anxiety: 21-47.

After measuring the anxiety level of the patient, and then given inhalation interest aromatherapy of lavender applied topical 5 times above the wrist of the left hand of the patient, then the patient was given 10 minutes inhaling the smell and while doing deep breathing. According to the previous study, that lavender as much as five drops put into water of 30 ml and evaporated for 15 minutes and then given inhaled patients, can give you the peace of mind of the patient and relax. After that, the patient's anxiety level is measured again using the same observation sheet. Then, to get rid of other scents that can affect the aroma of lavender flowers, the patient and researcher hands will first be cleaned using wet wipes and will be left until the patient and researcher hands are completely dry for \pm 2 minutes. The patient is given a smear of lavender aromatherapy 5 times without repeating movements over the patient's wrist that is not injured or irritated. With a distance of \pm 5 cm, the patient will be given 10 minutes to inhale the aromatherapy, accompanied by the researcher while guiding the patient using deep breath relaxation techniques. After 10 minutes passed, the researchers then re-measured the anxiety scale of patient after inhaling the aromatherapy. Researchers measured patient anxiety using the HRSA scale.

Furthermore, the data analyzed by using the SPSS 23 with the analysis of univariate to obtain a frequency distribution and bivariate analysis to determine whether there was a significant effect before and after intervention was done using Wilcoxon Rank test, where the test was to test the 2 variables [8].

Results and Discussions

There were 15 person of respondent in this study. The following is the frequency distribution characteristics of respondents by age, gender and education as in table (Tables 1-4).

Table 1 Shows that most respondents were aged 46-55 years with the number of 7 people (46,7%). As for all respondents, namely 100% of the female gender with background education was high school 66.67 or as many as 10 people.

Table 1 Characteristics of respondents.

| Age | Total | % |
|---------------|-------|-------|
| 26 - 35 | 1 | 6.67 |
| 36 - 45 | 3 | 20 |
| 46 - 55 | 7 | 46.7 |
| 56 - 65 | 4 | 26.6 |
| >65 | - | - |
| Gender | Total | % |
| Men | - | - |
| Female | 15 | 100 |
| Education | Total | % |
| Elementary | 1 | 6.67 |
| Junior School | 2 | 13.33 |
| Hight School | 10 | 66.67 |
| Bachelor | 2 | 13.13 |

Table 2 Scale of Anxiety Before the Given Aroma Lavender Flowers Therapy.

| Level of Anxiety | Total | % |
|------------------|-------|-------|
| Mild | 4 | 26.70 |
| Moderate | 11 | 73.33 |
| Total | 15 | 100 |

Table 3 The Scale Of Anxious After The Aroma Therapy Of Lavender Flowers.

| Level of Anxiety | Total | % |
|------------------|-------|-------|
| Mild | 13 | 86.70 |
| Moderate | 2 | 13.33 |
| Total | 15 | 100 |

Table 4 Effect of aroma therapy lavender flowers pre-post Intervention.

| Intervensi | Mean rank | (+) rank | (-) rank | P -Value |
|------------|-----------|----------|----------|----------|
| Pre | 0.00 | 15 | 1 | |
| Post | 7.00 | 0 | 14 | 0.001 |

Table 2 shows that the majority of patients mastectomy experiencing moderate anxiety before undergoing surgery, which was as much as 11 or 73.33%.

Table 3 shows that after the given intervention aromatherapy lavender flowers, patients tend to experience decreased levels of anxiety to be mild. Where as many as 13 patients or 86,7% with the scale of the mild anxious.

Based on the results of the wilcoxon rank test research obtained Mean rank ≤ 10 , ie 7.0 is shown that the results of research from the flowers of lavender is not too strong to affect the scale of anxious patients mastectomy. A value of 0 on the Mean Rank positive which means that changes occur between the value before the given lavender flowers and after a given lavender flowers. While the value of 14 on the Mean rank of the negative shows that there were 14 patients that experience a change in the scale of the dismay of the scale being a scale of light. While the p value of 0.001 or <0.05 indicates that the aroma therapy of lavender flowers effect to decrease the scale of the anxious patient pre-mastectomy.

Discussion

The level of anxiety before given lavender aromatherapy

Based on the results of the study showed that the majority of respondents in Murni Teguh Memorial Hospital experiencing anxiety are that as many as 11 people, while a minority of patients by as much as 4 people who have experienced the scale of the anxious light.

The results of the Research According to Rachmad [19], anxiety arises because of the presence of something that is not clear or is not known so it appears the feeling is not calm, a sense of worry, or fear. [11,29] state anxiety is a manifestation of behavioral psychological and a variety of patterns of behavior arising from feelings of concern subjective and tension.

The level of anxiety after given lavender aromatherapy

The previews study, of the 30 students who will attend the lecture statistics II, found as many as 6 students with severe anxiety (20%), 22 students who were experiencing anxiety (73.3%), and 2 students in conditions of mild anxiety (6.6 percent).

Room surgery Murni Teguh Memorial Hospital patients who experience anxiety often do the cancellation or postponement of surgery due to the many complications that appear good from a medical condition or psychological condition of the patient. In patients before surgery anxiety that is raised could have been driven by a variety of conditions such as the lack of information about the surgery, which includes anesthesia, how the operation will last until the circumstances that will occur after surgery. Procedure surgery or surgery in general will give you an emotional reaction which is typical for the patient, such as fear, anger and restlessness as well as anxiety [2].

Based on the results of this research can be known that the scale of anxiety experienced by the patient mastectomy after being given aromatherapy lavender be the level of anxiety mild, where as many as 13 people patients experience levels of anxiety mild, while 2 patients were on the scale of the level of moderate anxiety. The results of this study showed that a decrease in the scale of anxiety from the level of moderate anxiety be the level of mild anxiety.

Previous research, stating that aromatherapy gives the effect of fragrance that beneficial either through the method of inhalation or inhalation or through the method of the smeared through the skin. Imbibing the fragrant aromas can cause changes in psychological and physiological human. Lavender aromatherapy can improve the wave-alpha wave in the brain waves and this is what helps to create a state of relaxed [32,33].

Researchers assume that a change in the value of the scale anxious after the intervention showed that the patients experienced a decrease after a given intervention level of anxiety by means of smeared flowers of lavender on the skin of the respondent is assisted with the help of inhalation of a breath in so that the patient inhales the aroma of a given therapy.

The effect of lavender aromatherapy on the scale of anxious patients mastectomy

The results of the analysis with the Wilcoxon Rank test after given lavender aromatherapy obtained the p-value of 0.001 which is smaller than α of 0.05 thus lavender aromatherapy effectively lower the scale of dismay experienced by the patient pre-mastectomy. Aromatherapy has several molecules that are released into the air as water vapor. When water vapor-containing component of the chemical is inhaled, will be absorbed by the body through the nose and the lungs which then goes into the blood stream. The same time when inhaled, the water vapor will run immediately to the system limbic of brain which is responsible for system integration and expression of feelings, learning, memory, emotions, and physical stimuli.

Lavender essential oil is very effective and beneficial when inhaled

or applied externally, because the sense of smell is closely related to human emotions. When the aroma of lavender essential oil is inhaled, the body will give a psychological response. Lavender essential oil can be beneficial in reducing anxiety and worry [27].

Lavender has a calming effect, the aroma of lavender can give a sense of calm, balance, a sense of comfort, a sense of openness and confidence [34]. The use of aromatherapy has a calming effect on the soul so that it can reduce stress. This statement is supported by research conducted by Donelli et al [35] that the provision of aromatherapy has an influence on the stress level of psychology students in attending statistics class II.

Based on the description above, the researcher assumes that anxiety can be influenced by how the patient interprets the anxiety stimulus itself, and the reaction of anxiety which is a person's response to stimuli such as fear, anxiety, restless crying and screaming and can also be influenced by individual or patient environmental conditions. This anxiety can be overcome by using

lavender aromatherapy, patients who get this aromatherapy will feel calm, comfortable, relaxed, satisfied and will be closer to the health workers who serve, because it can be done directly by health workers to be able to reduce the scale of anxiety pre-mastectomy.

Conclusion

The lavender aromatherapy was effective in lowering the scale of anxiety for pre-mastectomy, with the p value on the Wilcoxon rank test was 0.001 or <0.05. So the aromatherapy of lavender flowers was recommended to reduce the level of anxiety, especially in patient's pre mastectomy. Expected results of this study can be developed by subsequent researchers to calculation of the time how long the influence of the aromatherapy of lavender flowers against the anxiety of the patient pre-mastectomy and can use the number of respondents is large, so that the results obtained more accurate and representative.

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