

Nursing Care For Breast Cancer Patients (Post Chemotherapy) With Nursing Problems Nausea Using Peppermint Aromatherapy And Music Therapy In The Raflesia Room At RSUD Dr. H. Abdul Moeloek Lampung Province

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ABSTRACT

Breast cancer (Carcinoma Mammarum) is a malignant tumor or lump that grows abnormally in breast tissue that comes from the epithelial tissue of the ducts and lobules of the breast and can spread to other parts of the body. Based on 2018 Global Burden of Cancer data, breast cancer is the second most commonly diagnosed malignancy accounting for over 11.6% of all cancers in women. Patients with breast cancer receive various treatments, one of which is chemotherapy, chemotherapy is a technique of using chemicals to destroy cancer cells and has side effects in the form of nausea. This study aims to determine and analyze the level of nausea before and after the application of peppermint aromatherapy and music therapy in breast cancer patients (post chemotherapy). The research method used is a qualitative method with a case study approach. Respondents in this study amounted to 2 people, namely Mrs. LS and Mrs. MY using purposive sampling technique according to the inclusion criteria, the respondent's nausea level was measured use the observation sheet of signs and symptoms of nausea level (SLKI). The results of this study obtained the same score before application on both respondents, namely 21.6% (13) of the severe nausea category and after the application of both respondents were in the mild nausea category. For the score of the 1st respondent or Mrs. LS, 71.6% (43) and the 2nd respondent or Mrs. MY with a score of 76.6% (46). It was concluded that there were changes in the level of nausea before and after being given peppermint aromatherapy and music therapy. The application of peppermint aromatherapy and music therapy interventions has a good impact in overcoming complaints of nausea and it is recommended that future researchers add more respondents to the study.

Keywords: Nausea, Peppermint Aromatherapy, Music Therapy

INTRODUCTION

Breast cancer is a malignant tumor that usually takes the form of a lump that grows abnormally in the breast tissue. Cancer can appear in the ducts, mammary glands, and tissues that support the breasts such as fat and connective tissue. In addition, breast cancer can spread to other parts of the body (Herninandari et al., 2023). Based on the 2018 Globocan Cancer Incidence and Mortality Estimates Report, breast cancer is the second most frequently diagnosed malignancy, accounting for more than 11.6% of all cancers in women. This disease is the fifth leading cause of cancer death and accounts for 6.6% of all cancer deaths worldwide. (Huang et al., 2021).

Based on data from the Ministry of Health of the Republic of Indonesia (2018) as of January 31 2019, it was revealed that the highest cases in women were breast cancer in 2013, namely 1.4/1000 population, increasing in 2018 to 1.79/1000 population, this increase in cases requires increased public awareness. about breast cancer. (Ketut et al., 2022). Based on data from the Lampung Province Health Office (2020), the incidence of breast cancer is also very high in Lampung Province, where in 2020 there were 300 people diagnosed with advanced stage breast cancer, three of whom were teenagers (Rilyani, 2023). Based on data in the Rafflesia Room at Dr. Regional General Hospital. H. Abdul Moeloek Lampung Province in 2024, starting from January 2 2024 to April 30 2024, there are 211 breast cancer patients who are undergoing chemotherapy. The 211 patients included outpatients and inpatients. Patients with breast cancer receive various treatments, one of which is chemotherapy. Chemotherapy is a technique of using chemicals to destroy cancer cells. From the results of research by Boccia (2013) it was found that 70% to 80% of all cancer patients who received chemotherapy experienced nausea and vomiting, with or without preventive medication (Lisnawati, K. et al., 2021)

Chemotherapy drugs stimulate the nausea center in the brain, namely the chemoreceptor trigger zone (CTZ), via afferent nerve fibers in the medulla oblongata. Furthermore, this stimulus is responded to through afferent nerve fibers in the vagus nerve and at the same time, the nausea and vomiting center provides autonomic reflex stimuli and sympathetic reflexes that accompany nausea and vomiting, namely in the form of contractions of the abdominal muscles and diaphragm, reverse movement of intestinal peristalsis, stimulation of the pharynx and stomach. and duodenal distension (stimulating gastrointestinal dopamine and serotonin receptors) resulting in nausea and vomiting involving several neurotransmitters and chemoreceptors (Ikhtiarani & Aprianti, 2023). Continuous nausea will result in vomiting, if not

treated immediately it can cause dehydration, electrolyte imbalance, weight loss and malnutrition, damage to the esophagus, stomach and bleeding (Ayubbana & Hasanah, 2021). So far, patients with nausea and vomiting due to chemotherapy in hospitals have only been treated with antiemetic drugs which can cause side effects. Common side effects are drowsiness, dry mouth, indigestion, constipation, and others. For this reason, there is a need for complementary treatment to reduce nausea and vomiting after chemotherapy. (Lumadi et al., 2021).

From the results of research conducted by Eghbali (2017) in (Lisnawati, K. et al., 2021) regarding the use of aromatherapy combined with peppermint aroma which is effective in reducing nausea and vomiting in the acute phase after chemotherapy in breast cancer patients. This is because the peppermint aromatherapy odor molecules that evaporate through the nasal mucosa are transmitted to chemical signals that move through the olfactory bulb and trigger receptors in the nasal epithelium, thus stimulating the limbic system and thalamus to release endorphins and serotonin which causes a person to be relaxed and comfortable. where this condition will suppress the stress stimulus which causes the body to feel comfortable so that it can reduce nausea and vomiting (Ayubbana & Hasanah, 2021: Lisnawati, K. et al., 2021).

Then another non-pharmacological treatment to reduce nausea is music therapy. Because music therapy is believed to reduce nausea and vomiting in post-chemotherapy patients. From the results of research conducted by (Zanah et al., 2015), there was a significant influence between the provision of classical music therapy on complaints of nausea and vomiting in post-chemotherapy patients with cancer in the Cytostatics unit at Telogorejo Hospital, Semarang (Zanah et al., 2015). Music works by manipulating the hypothalamus so that it does not react too strongly to stressors. This is because music stimulates the pituitary to release endorphins and serotonin which produce euphoria and sedation for the listener. So music can change pain, stress, anxiety and complaints of nausea, vomiting and other health problems that can be diverted with music therapy (Sesrianty et al., 2018). Based on the above background of the many phenomena that occur in cancer, especially breast cancer, the author is interested in providing nursing care for breast cancer patients (post chemotherapy) with nausea nursing problems using peppermint aromatherapy and music therapy in the Rafflesia Room at RSUD. Dr. H. Abdul Moeloek Lampung Province, to help reduce nausea in patients with breast cancer after undergoing chemotherapy.

METHOD

This research method uses a qualitative method with the research design used is a case study approach which aims to provide an overview or description of the phenomenon of administering peppermint aromatherapy and music therapy to breast cancer patients (post chemotherapy) who experience nausea. The type of case study approach in research is to use a study to explore the problem of nursing care for breast cancer patients (post chemotherapy) with nausea nursing problems using peppermint aromatherapy and music therapy.

The subjects used in this research were 2 subjects, namely Mrs. LS and Mrs. MY using a purposive sampling technique in accordance with the inclusion criteria studied. The inclusion criteria that can be research subjects include; Patients with composmentis awareness, patients with nausea, stage 0, I, II breast cancer patients (if given additional post-operative therapy such as chemotherapy) and stages III and IV, post-chemotherapy breast cancer patients, patients who can read and write, Bandar domicile patients Lampung, patients who can smell and are not allergic to the aroma of peppermint, patients who can hear sounds, patients who can communicate clearly and follow instructions and are willing to become respondents by signing informed consent.

The instruments used in implementing this intervention are; Observation sheet for signs and symptoms of nausea level (SLKI) which has 3 categories of nausea level, including severe nausea with a score $\leq 33\%$ (1-20), moderate nausea 33-66% (21-40) and mild nausea $\geq 66\%$ (41-60) where the score will be calculated based on expectations of signs and symptoms of nausea that appear on the observation sheet, Standard Operating Procedures (SOP) Peppermint Aromatherapy, Standard Operating Procedures (SOP) Classical Music Therapy: Mozart, steamer electric diffusers and peppermint aromatherapy, tools for listening to music on cellphones and earphones.

RESULTS

Before being given peppermint aromatherapy and music therapy, respondents were first observed for signs and symptoms of nausea by researchers to measure the level of nausea. Then the researcher will provide peppermint aromatherapy and music therapy to the two respondents for three (3) days for 15-30 minutes in accordance with standard operating procedures (SOP).

After administering peppermint aromatherapy and music therapy, both respondents were observed for signs and symptoms of nausea levels again to determine whether there was a decrease in nausea levels before and after being given peppermint aromatherapy and music therapy. The results of observing signs and symptoms of nausea levels can be seen in table 1 before implementation and table 2 after implementation.

Table 1 Observation Results of Signs and Symptoms of Nausea Level in Breast Cancer Respondents (Post Chemotherapy) Before Implementing Peppermint Aromatherapy and Music Therapy in the Rafflesia Room at Regional Hospital. Dr. H. Abdul Moeloek Lampung Province, 23 May 2024 (n=2)

No	Respondent	Score	Category
1	Ny. LS	21,6% (13)	Heavy Nausea
2	Ny. MY	21,6% (13)	Heavy Nausea
	Rata-rata	21,6% (13)	Heavy Nausea

Information : Heavy Nausea \leq 33% (1-20)
 Moderate Nausea 33%-66% (21-40)
 Light Nausea \geq 66% (41-60)

Based on the table above, the results obtained when the researchers filled in the observation sheet for signs and symptoms of nausea levels before being given peppermint aromatherapy and music therapy were obtained by the majority of respondents in the severe nausea category, namely Mrs. LS 21.6% (13) and Mrs. MY 21.6% (13) with an average level of nausea for respondents in the severe nausea category of 21.6% (13).

Table 2 Observation Results of Signs and Symptoms of Nausea Level in Breast Cancer Respondents (Post Chemotherapy) After Application of Peppermint Aromatherapy and Music Therapy in the Rafflesia Room at Regional Hospital. Dr. H. Abdul Moeloek Lampung Province, 25 May 2024 (n=2)

No	No	Respondent	Score
1	Ny. LS	71,6% (43)	Light Nausea
2	Ny. MY	76,6% (46)	Light Nausea
	Rata-rata	74% (44,5)	Light Nausea

Information : Heavy Nausea \leq 33% (1-20)
 Moderate Nausea 33%-66% (21-40)
 Light Nausea \geq 66% (41-60)

Based on the table above, the results obtained when the researcher filled in the observation sheet for signs and symptoms of nausea levels after being given peppermint aromatherapy and music therapy, it was found that the respondents' nausea levels were both at the level of nausea in the mild nausea category, namely Mrs. LS 71.6% (43) mild nausea level category and Mrs. MY 76.6% (46) with mild nausea level category. The average level of nausea of the two respondents after implementation was in the mild nausea category, 74% (44.5).

DISCUSSION

Before Applying Peppermint Aromatherapy and Music Therapy

Based on the results of research before applying peppermint aromatherapy and music therapy to two breast cancer respondents (post chemotherapy) with nausea nursing problems, the level of nausea in the Rafflesia Room at RSUD was reduced. Dr. H. Abdul Moeloek Lampung Province. On May 23 2024, researchers filled out an observation sheet for signs and symptoms of nausea levels before applying peppermint aromatherapy and music therapy. For the observation sheet, the level of nausea has 3 expectations, namely increasing, decreasing and improving. Where these three expectations are further divided into 5 criteria, the results for each of which are previously in the range (1-5), if the number obtained is smaller, the more severe the level of nausea and vice versa, if the greater the value obtained, the lighter the level. nausea.

The results of the observations obtained from Mrs. LS before implementation received a score of 21.6% (13) in the severe nausea category, this was indicated by the presence of 10 of the 12 signs and symptoms on the observation sheet. Mrs. LS said that before she got breast cancer, Mrs. LS has a history of frequently consuming fast food and foods made from raw fish such as sushi when he used to work abroad and before he got married. This is in line with research (Potter & Perry, 2015) in (Maria et al., 2017) which states that there are activities and behaviors that can have a negative impact on health. Negative impacts on health include overeating or malnutrition, consuming junk food or fast food, smoking, drinking alcoholic beverages, life-threatening stress, and an unhealthy lifestyle that has the potential to accelerate the growth of cancer cells. This statement was then strengthened by research by Balasubramaniam (2013) in (Maria et al., 2017) which found that women who consumed more than 30 g of fat per day had twice the risk of developing cancer.

Apart from that, Mrs. LS also said that since her first child was born in 2016 Mrs. LS only gave breast milk (mother's milk) for approximately 1 month because her child did not want to breastfeed and this also happened to her second child who was born in 2021 and was only given formula milk because her child did not want to be given breast milk and her breast milk did not come out. . From the results of research (Prasetyowati & Katharina, 2014) in (Marlia. S, 2021) conducted at RSUD. Dr. H. Abdul Moeloek, Lampung Province, concluded that women who do not breastfeed/breastfeed for less than 2 years have a 2,912 times risk of experiencing breast cancer compared to women who breastfeed exclusively, who have a lower risk of breast cancer compared to women who do not breastfeed.

Then, from the results of filling in the observation sheet on the level of nausea before implementation carried out by the researcher on Mrs. MY received a score of 21.6% (13) in the severe nausea category, this was shown by the presence of 11 out of 12 signs and symptoms of nausea levels on the observation sheet. So the average before applying peppermint aromatherapy and music therapy for both respondents was in the severe nausea category with a score of 21.6% (13). Then Mrs. MY said that before she got breast cancer, Mrs. MY has a history of not breastfeeding her three children because her breast milk did not come out and Mrs. MY also said that her three children had been accustomed to being given formula milk since they were babies because she worked so she didn't have time to pump her breast milk and often left her children behind while working. The type of chemotherapy drug used for the two respondents, namely Mrs. LS received the chemotherapy drug CAF regimen, namely Cyclophosphamide 750 mg which has a moderate emetogenic effect because it is given ≤ 1500 mg, Doxorubicin 75 mg which has a high emetogenic effect, and 5-Fluorouracil which has a low emetogenic effect and Mrs. MY received the chemotherapy drug Docetaxel 100 mg. From research results (Wijayanti. N, 2023) Docetaxel has non-hematological side effects such as dermatological side effects including hair loss, skin hypersensitivity reactions and nail damage. From the researcher's observations, Mrs. MY experienced dermatological side effects in the form of hair loss and experienced side effects in gastrointestinal disorders, namely nausea. Apart from that, Mrs. MY received the chemotherapy drug Carboplatin 400 mg which has a moderate emetogenic effect (Gupta. K, 2020).

Side effects of chemotherapy in the form of ongoing nausea will result in vomiting, if not treated immediately it can cause dehydration, electrolyte imbalance, weight loss and malnutrition.

Prolonged vomiting can cause damage to the esophagus, stomach and bleeding (Ayubbana & Hasanah, 2021).

After Applying Peppermint Aromatherapy and Music Therapy

Based on the results of research after applying peppermint aromatherapy and music therapy to two breast cancer respondents (post chemotherapy) with nausea nursing problems, the level of nausea in the Rafflesia Room at RSUD was reduced. Dr. H. Abdul Moeloek Lampung Province which was carried out for 3 days with a time of 15-30 minutes according to standard operating procedures (SOP). The results obtained when the researchers filled in the observation sheet for signs and symptoms of nausea level after being given peppermint aromatherapy and music therapy on May 25 2024, both respondents were at the same level of nausea, namely in the mild nausea level category, shown by the percentage and score they had. to Mrs. LS 71.6% (43) and Mrs. MY 76.6% (46) with mild nausea level category. The average level of nausea of the two respondents after implementation was in the moderate nausea category, 74% (44.5).

This reduction in the level of nausea was demonstrated by the results of the observation sheet of signs and symptoms of the level of nausea found in both respondents during the three (3) days of implementation. The signs and symptoms in respondents were different for each individual, where the signs and symptoms that appeared after application on day three (3) of the two respondents, Mrs. LS and Mrs. MY both experienced a decrease in the level of nausea from the category of severe nausea to mild nausea. However, even though both respondents were in the mild nausea level category, Mrs. LS and Mrs. MY has different levels of nausea where Mrs. LS experienced a mild level of nausea but not as mild as the level of nausea experienced by Mrs. My. This is because when observing the signs and symptoms before implementing Ny. MY has signs and symptoms of nausea that are more severe than Mrs. LS with a comparison between Mrs. LS and Mrs. MY, namely 10:11 of the 12 existing signs and symptoms, was then calculated based on the level of expectation of the signs and symptoms that appeared, and a recalculation was carried out for all signs and symptoms of nausea after application, where the result was that Mrs. LS experienced nausea in the mild nausea category with a score of 71.6% (43) but not as light as the level of nausea in Mrs. MY with a score of 73.6% (46). This is because when the researcher gave the application to Mrs. LS, focus Mrs. LS is often distracted by the presence of her two children. Because every researcher carries out therapy on Mrs. LS at home, Mrs. LS was always near respondents and researchers who were curious like a child his age who actively asked questions and told stories. Apart from that, when

the researcher applied it to Mrs. LS, the respondent's husband is not at home because he is working so there is no one to accompany his two children. With the presence of the respondent's child, several stages of therapy were created. Some of them were distracted, namely closing their eyes and seen several times inhaling (aromatherapy) not according to instructions because the respondents had to answer questions from their children and listen to their children's stories. This is what causes Mrs. LS is not as good or as mild as the level of nausea in Mrs. MY because he focused on Mrs. While listening to music and inhaling peppermint aromatherapy, LS was distracted by her two children.

Meanwhile, the second respondent, namely Mrs. MY stages of therapy can be followed by respondents well and follow instructions. Where from the first day to the last day of the study, respondents received therapy according to the standard operating procedures (SOP) of peppermint aromatherapy and music therapy well. This is because, when at Mrs. MY really rested in her room so Mrs. MY is not distracted by the situation at home or other family members. Apart from that, 2 of Mrs. MY is already attending class VI elementary school and class VII junior high school. According to the explanation from Mrs. MY two children already understand their parents' situation and are able to look after their little brother who is approximately 3 years old. Apart from that, every time the researcher visited the respondent's house, Mrs. MY is always at home to accompany his wife and accompany his small child while his older siblings his older brother goes to school. Apart from that, the researcher also observed the facial expressions of the respondents, where when the researcher gave therapy to Mrs. MY seemed able to follow the researcher's instructions. In this way, the peppermint aromatherapy can be inhaled slowly by the olfactory system and the sound of the music heard by the respondent can also be well received by the auditory system.

Despite the level of nausea experienced by Mrs. LS is not as mild as what Mrs. MY, but Mrs. LS said that he felt relieved when inhaling peppermint aromatherapy because the smell was fresh and also made breathing easier. Mrs. LS also said that the music he heard was very nice and calm. The second respondent, namely Mrs. MY, where is Mrs. MY said that the peppermint aromatherapy he inhaled was very fresh and relieved his breathing because it smelled like wind oil and Mrs. MY said that the music he heard was very nice and comfortable to listen to while sleeping. Both respondents also said that after receiving therapy for three (3) days, their complaints of nausea had decreased quite a bit, unlike when they first received therapy.

This is because inhaling peppermint aromatherapy can transmit odor molecules to the olfactory nervous system (olfactory) thereby stimulating the limbic system and thalamus to release endorphins and serotonin which causes a person to be in a relaxed and comfortable state, where this condition will suppress the stress stimulus that causes the body feels comfortable so it can reduce nausea and vomiting (Ayubbana & Hasanah, 2021). Apart from that, music therapy is a stimulus that can be used as a pleasant distraction for chemotherapy patients. Where Mozart's music is music that has a positive influence on the health of those who listen to it, with a duration of 15-30 minutes, the type of music Mozart Piano Concerto No. 21 Adante which has a tempo of 60-80 beats per minute. Mozart's music induces calm and increased awareness characterized by alpha waves, whose cycles range from 8-13 hertz. Peak periods of creativity, meditation, and sleep are characterized by theta waves, from 4 to 7 hertz, and deep sleep, deep meditation and trance produce delta waves ranging from 0.5 to 3 hertz. The slower the brain waves, the more relaxed, relaxed, comfortable, satisfied, peaceful, calming, so this music is widely used to reduce pain, anxiety, nausea, vomiting and other health problems (Arofah, 2023).

Based on the results of research on peppermint aromatherapy and music therapy in breast cancer patients (post chemotherapy) with nausea nursing problems in the Rafflesia Room at RSUD. Dr. H. Abdul Moeloek Lampung Province in 2024 obtained an average score before implementation in the severe nausea category of 21.6% (13) and an average after implementation in the mild nausea category of 74% (44.5). There was a decrease before and after application from the level of severe nausea to mild nausea so that this condition led to the conclusion that peppermint aromatherapy and music therapy could reduce the level of nausea.

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