

THE EFFECT OF ORANGE PEEL AROMATHERAPY TO REDUCE NAUSEA, VOMITING DUE TO CHEMOTHERAPY IN CHILDREN AGED 3-17 YEARS STAYING IN THE HUMANITARIAN EMERGENCY AGENCY'S RAPID RESPONSE FOUNDATION HOUSE (RCBDAK) IN 2023

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ABSTRACT

Background . Nausea and vomiting are complaints from pediatric cancer patients undergoing chemotherapy. Chemotherapy is a treatment to control the growth of cancer cells. One of the effects of chemotherapy is nausea and vomiting which is caused by stimulation of the nausea and vomiting center in the chemoreceptor trigger zone and the chemotherapy drug content . **The purpose** of this study was to find out whether there was an effect of orange peel aromatherapy on reducing nausea and vomiting due to chemotherapy in children aged 3-17 years who stayed at the Humanitarian Emergency Response Foundation (RCBDAK) shelter in 2023. **Methodology** used in this research is quantitative with a PREK experimental design approach with a One Group pretest-posttest design approach with a sampling technique using a purposive sampling technique of 20 respondents. **The results** of the research were that there was an effect of orange peel aromatherapy to reduce the level of nausea and vomiting before and after being given orange peel aromatherapy via a humidifier with the results of the marginal homogeneity test showing a P-Value value of $0.000 < \alpha(0.05)$. So it can be concluded that H_0 is rejected and H_a is accepted. **The conclusion** of this study is that there is an influence of orange peel aromatherapy to reduce nausea and vomiting due to chemotherapy in children aged 3-17 years who stay at the shelter home of the Human Emergency Agency Rapid Response Foundation (RCBDAK) in 2023.

Keywords : Cancer, Chemotherapy, Nausea, Vomiting, Aromatherapy

BACKGROUND

Cancer is a disease characterized by the growth of abnormal cells that can develop and grow out of control. Currently, cancer is a serious

disease that threatens the health of children in the world. The threat of cancer throughout the world is very large because every year there is an increase in the number of new sufferers who

experience cancer, it is estimated that more of 6 million new cancer sufferers every year. The condition of cancer patients can be improved with appropriate treatment to fight cancer including surgery, radiotherapy and chemotherapy . (Afifah, I., & Sopiany 2017) .

Treatment that can be used to control the growth of cancer cells is chemotherapy, which aims to kill remaining cancer cells in the body and relieve cancer symptoms, including in late stage cancer (palliative chemotherapy). (Susanti and Tarigan 2013) .

The most common and frequently occurring side effect after chemotherapy is nausea, vomiting and this makes the patient feel uncomfortable. (Handayani et al. 2020) .

The cause of nausea and vomiting in patients lies in the effects of chemotherapy drugs. There are many ways to reduce nausea and vomiting, but one of them is non-pharmacological by giving orange peel aromatherapy which is believed to help reduce nausea and vomiting because orange peel contains essential oils to reduce nausea and vomiting, this aromatherapy is inhaled through the nose and captured by receptors which are transmitted to the brain. Aromatherapy is also part of a complementary treatment that can be used to improve the quality of life of cancer patients and can help instill a sense of comfort to reduce or eliminate cancer.

discomfort due to the effects of chemotherapy. (Kuzairi, Yulianto, and Safitri 2016) .

The aim of giving orange peel aromatherapy is to find out whether there is an effect of orange peel aromatherapy to reduce nausea and vomiting due to

chemotherapy in children aged 3-17 years who stay at the Humanitarian Emergency Agency Rapid Response Foundation (RCBDAK) shelter in 2023.

METHOD

This research was carried out at the home of the humanitarian emergency agency rapid response foundation, from 26 July to 10 August 2023. This type of research is quantitative research, while the design used in this research is PRE Experimental Design research with a One Group Pretest-Posttest approach. Next, subjects who met the inclusion criteria were asked to agree to their willingness to take part in the research (informed consent).

The sample size in this study was 20 respondents using the la meshow formula (1977).

The sampling method is a non-*probability sampling method* with a purposive sampling approach, namely a sampling technique based on certain considerations made by the researcher himself, based on the nature and characteristics of the population that are known to the researcher. Furthermore, subjects who met the inclusion criteria were a) men and women. b) children aged 3-17 years after chemotherapy. c) good awareness (composmentism). The data collection technique in this research is by using a questionnaire whose validity and reliability have been tested. A questionnaire created by researcher Hamid Yiyman was distributed to 20 respondents. The reliability test using Cochran's test showed that the results of the Bexter Animates Retchung Faces questionnaire were (Cochran's $Q = 9$, $p = 0.437$). So it can be concluded that the instrument used is reliable. The data analysis used uses marginal homogeneity.

RESULTS AND DISCUSSION

Table 1.

Characteristics of respondents based on age, gender, type of disease.

characteristics	Frequency	Percentage %
Age		
Pre school: 4-6	3	15.0%
School age: 7-12 years	14	65.0 %
Adolescent age: 13-17 year	4	20.0%
Gender		
Man	11	55.0%
Woman	9	45.0%
The type of disease		
All	13	65.0%
Lymphoma	2	10.0%
Hemophilia	1	5.0%
Aml	2	10.0%
Glibastoma	1	5.0%
Cml	1	5.0%

Based on the table above, it illustrates that of the total 20 respondents in the school age category (7-12 years), this is in accordance with the opinion of (Dwienda Octa, Maita Liva, Saputri Maya Eka 2014) that age is one of the characteristics of respondents who can influence whether or not an intervention is easy to carry out. This can be seen when conducting research in the field. At the age of 3-6 years, it is more difficult to intervene because the child does not understand how to deal with the nausea

and vomiting they are experiencing. At the age of 7-12 years, it is easy to intervene because the child has begun to understand how. how to reduce the feeling of nausea and vomiting and in teenagers aged 13-17 years they are willing and easy to intervene because they already know how to control nausea and reduce the feeling of nausea and vomiting by giving aromatherapy. School-aged children are easily affected by cancer because they are 5-14 years old most susceptible to cancer and is detected in school-aged children.

If we look at the gender of the respondents, the majority were in the male category, namely 11 respondents. In line with the opinion of (Kasron, Waluyo, and Dahlia 2017) gender can also determine the level of nausea and vomiting because it is the female gender that has the greatest influence on complaints of nausea and vomiting because hormones and the function of cortisol in the female gender have more influence on blood flow to the brain so that Nausea and vomiting are greater than in men.

Meanwhile, looking at the type of disease, the majority of respondents were children who suffered from All's disease, namely 13 respondents (65.0%). This is in line with the statement put forward by (Fernandes and Fernandes nd) that leukemia cancer or All, leukemia attacks more children than other cancers and every year this leukemia disease increases.

Table.2

Levels of Nausea and Vomiting Due to Chemotherapy Before Being Given Aromatherapy With Orange Peel Staying at the Humanitarian Emergency Agency's Rapid Response Foundation Halfway House in 2023

Level of Nausea and Vomiting	Before Intervention	
	Number of Respondents	Percentage %
Light	8	40.0%
Currently	7	35.0%
Heavy	5	25.0%
Total	20	100.0%

Table 2 shows that the level of nausea and vomiting is in the moderate nausea and vomiting category but the majority is in the mild category, 8 (40.0%), in the moderate category, 7 (35.0%), while there are 5 (25.0%) in the moderate category. 0%).

According to the journal (Simbolon et al. 2022) , in July 2022, the pain scale before the intervention was carried out had the highest results of nausea and vomiting, namely mild nausea and vomiting with 13 respondents because when aromatherapy was given the respondents

still experiencing nausea and vomiting due to chemotherapy.

It was seen that during observations when distributing questionnaires, some children undergoing chemotherapy still experienced nausea and vomiting, the families and children undergoing chemotherapy still did not know how to reduce nausea and vomiting, it was proven that when they wanted to give aromatherapy, there were still many who did not know about this therapy. able to reduce the level of nausea and vomiting.

Table 3

Levels of Nausea and Vomiting Due to Chemotherapy After Being Given Aromatherapy with Orange Peel Staying at the Humanitarian Emergency Agency's Rapid Response Foundation Halfway House in 2023

Level of nausea and vomiting	After Intervention	
	Number of respondents	Percentage %
Not nauseous	11	55.0%
Mild nausea and vomiting	5	25.0%
Moderate nausea and vomiting	2	10.0%
Severe nausea and vomiting	2	10.0%
Total	20	100.0%

Table 3 above shows that after the orange peel aromatherapy intervention was carried out using a humidifier, the level of nausea and vomiting without nausea was 11 respondents (55.0%), the level of mild nausea and vomiting was 5 (25.0%), moderate nausea and vomiting

was 2 (10.0%), and the level of severe nausea and vomiting was 2 (10.0%). Apart from that, this aromatherapy has been modified by using orange peel aromatherapy and is given through a humidifier which can make it easier for respondents to inhale the aromatherapy

given so that the level of nausea and vomiting can decrease.

This is in line with the journal (Kundarti, Rahayu, and Utami 2017) , it was found that the level of nausea and vomiting decreased after being given aromatherapy, in a journal related to nausea before being given aromatherapy, it was found that the level of severe nausea of 2 respondents decreased to no one experiencing severe nausea and vomiting after it was given. intervention.

It was seen that there was a decrease in the level of nausea and vomiting after the intervention, this was shown by the average level of nausea and vomiting

after undergoing chemotherapy before the intervention was in the category of moderate nausea and vomiting and after the intervention the average level of nausea and vomiting of respondents decreased to the category of mild nausea and vomiting and even the category of not having nausea and vomiting.

This is in line with the results of this research in line with research conducted by (Zahri D. cancer patient care. Feriana handian ira, editor. PT Global Executive Technology; 2023) showing that orange peel aromatherapy has a greater effect on reducing the level of nausea and vomiting in children undergoing chemotherapy. .

Table 4
Marginal Homogeneity Test
Knowing Populations That Have the Same Variants in Levels of Nausea and Vomiting
Before and After Being Given Orange Peel Aromatherapy at the Humanitarian Emergency
Agency's Rapid Response Foundation Shelter in 2023

Variable	N	P Value
Before Therapy	20	0,000
After Therapy	20	

Based on table 4 above, the analysis results obtained show that the Through a 1.85 humidifier with a standard deviation of 0.813 and after a standard deviation of 1.020. It can be seen that the mean difference before and after therapy is 1.1 with a standard deviation of 0.207. Obtained P-Value value 0.000 $<\alpha(0.05)$. So it can be concluded that H_0 is rejected and H_a is accepted. That there is an effect of orange peel aromatherapy to reduce nausea and vomiting due to chemotherapy in children aged 3-17 years who stay overnight at the humanitarian emergency agency rapid response foundation (RCBDAK) shelter in 2023.

average

According to researchers' assumptions, the influence of orange peel aromatherapy to reduce the level of nausea and vomiting in children aged 3-17 years who underwent chemotherapy before and after the intervention was due to respondents who were very cooperative in inhaling aromatherapy for 5-10 minutes and enthusiastic respondents who wanted to try inhaling skin aromatherapy. oranges brought by researchers.

The results of this research are in line with research conducted by (Nuriya, Noor Alivian, and Taufik 2021) entitled "aromatherapy as a complement

to overcome pain, depression, nausea and vomiting in cancer patients" that this research shows that using orange peel aromatherapy as an aid for reducing nausea and vomiting in children undergoing chemotherapy which is more effective in reducing the level of nausea and vomiting, because seen from many considerations, orange peel aromatherapy is usually used as an aid to reduce the level of nausea and vomiting in pregnant women.

CONCLUSIONS AND RECOMMENDATIONS

Based on research and data analysis used to determine the effect of orange peel aromatherapy to reduce the level of nausea and vomiting before and after being given intervention via a humidifier at the humanitarian emergency agency rapid response foundation (RCBDAK) shelter in 2023, from 20 respondents it was concluded that the level of nausea and vomiting before Given orange peel aromatherapy, 8 (40.0%) respondents were in the mild nausea and vomiting category and 7 (35.0%) respondents were in the moderate level.

Meanwhile, after being given orange peel aromatherapy, 11 (55.0%) respondents were in the no nausea category and 5 (25.0%) respondents were in the mild nausea category.

The suggestion that the researchers hope is that orange peel aromatherapy can be used as a non-pharmacological treatment effort to increase the development of knowledge about health so that the quality of life can improve in a better direction. It is hoped that this will be an input for further research, namely how to reduce the level of nausea and vomiting in respondents. My suggestion for this research is that it

can be used as a routine activity carried out by the rapid response shelter foundation for humanitarian emergency agencies in order to improve the quality of life of child patients undergoing chemotherapy.

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