



## THE EFFECTIVENESS OF PROVIDING OREM SELF CARE BASED HEALTH EDUCATION ON IMPROVING THE QUALITY OF LIFE OF BREAST CANCER PATIENTS

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### ARTICLE HISTORY

Received: 11 June 2024

Accepted: 28 July 2024

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### ABSTRACT

**Introduction:** Breast cancer can cause many problems, both psychosocial and physical problems, which can reduce the patient's quality of life. Therefore, an intervention is needed that can improve their quality of life. This study aims to analyze the benefits of the intervention of implementing a self-care orem-based education system to improve the quality of life of breast cancer chemotherapy patients at Graha Amerta Surabaya.

**Method:** This study used a pre-experimental design with a one-group pre-posttest design method on 60 breast cancer patients treated with chemotherapy who were taken using a consecutive sampling technique. The quality of life instrument was measured using the EORTC QLQ-C30 questionnaire. Data were analyzed using the Wilcoxon signed rank statistical test.

**Results:** The results of the study showed that after being given the intervention to implement an educational system based on self-care orem, the results showed that the majority of 39 (65.0%) respondents had a quality of life in the good category and 21 (35.0%) respondents had a quality of life in the sufficient category. The results of the Wilcoxon statistical test analysis on the quality of life of breast cancer patients produced a significance value of 0.000.

**Conclusion:** There is a significant effect of implementing an OREM self-care system education on improving the quality of life of breast cancer chemotherapy patients at Graha Amerta Surabaya. It is hoped that nurses can implement interventions to implement educational systems based on self-care orem for breast cancer patients in hospitals so that patient independence can increase so that the patient's quality of life can be optimal.

**Keywords:** Educative system, breast cancer, quality of life, and self-care.

### Cite as:

Kristina, Et al. (2024). The Effectiveness Of Providing Orem Self Care Based Health Education On Improving The Quality Of Life Of Breast Cancer Patients. *Indonesian J. of Community Health Nurs.*, 9(2), 88-93. [Doi: 10.20473/ijchn.v8i2.5887](https://doi.org/10.20473/ijchn.v8i2.5887)

## INTRODUCTION

Breast cancer is a type of cancer that develops in the breast tissue when unchecked breast tissue cells invade surrounding healthy breast tissue (Loibl et al. 2021). Breast cancer (85%) appears in the lining cells (epithelium) of the ducts and (15%) appears in the lobules of the glandular tissue of the breast (WHO 2021). Breast cancer patients deal with a variety of psychological and medical issues. They also have to deal with issues related to care, bodily changes, emotions of uncertainty and loss, self-reconstruction, and adjustments to social relationships and support

systems, all of which can lower the patient's quality of life (Sukartini et al. 2020). Providing an educative system intervention is certainly very necessary for patients to increase support for patient knowledge related to breast cancer so that it can help patients improve their quality of life.

Breast cancer is the most frequent cancer in women worldwide and can be cured in 70-80% of patients with early stage non-metastatic disease, so early detection and early diagnosis have a very important role in this regard (Wang 2017). Breast cancer data in the world in 2020, there were 2.3

million women diagnosed with breast cancer and as many as 685,000 died. A total of 7.8 million women were diagnosed with breast cancer in the last five years, so breast cancer is one type of cancer that is often suffered by women throughout the world (WHO 2021).

In Indonesia, breast cancer is one of the most common types of cancer suffered by women and ranks at the top, making breast cancer one of the causes of death in women. Data from Globocan (2020), states that there were 68,858 (16.6%) breast cancers out of a total of 396,914 new cases of cancer in Indonesia. Apart from that, the number of patient deaths due to breast cancer reached more than 22 thousand. In 2018, the prevalence of cancer in Indonesia showed an increase from 1.4 per 1000 population to 1.79 per 1000 population (Ministry of Health of the Republic of Indonesia 2018). Results of researchers' interviews in March 2023 with 8 post-chemotherapy breast cancer patients at Dr. Soetomo Surabaya showed the results that all 8 patients experienced stress and shock when they were first diagnosed by doctors with breast cancer and had to undergo chemotherapy even though they had never experienced any complaints, apart from that the stress felt by the patients was due to the side effects of chemotherapy, most of the patients said the side effects of chemotherapy were nausea, vomiting and decreased appetite. Five out of Eight patients stated that they needed support from medical personnel for support and consultation when patients needed information related to their disease.

Most patients with breast cancer experience a decline in aspects of their quality of life, this is because patients living with breast cancer experience loss of something important, lack self-confidence, live with fear, and experience psychological problems (Sukartini et al. 2020). Because breast cancer is a chronic, progressive disease that affects a patient's physical, psychological, social, and spiritual well-being on a wide range, treatment for these patients must take quality of life into consideration. State that the quality of life of patients with breast cancer can be measured by considering aspects of physical, spiritual, psychological and social well-being (Al Zahrani et al. 2019).

In providing nursing care to patients with breast cancer, it is hoped that the patient will be able to be independent after completing hospital treatment, so that the patient's quality of life can improve. One of the nursing theories that discusses patient independence in caring for themselves after completing hospital treatment is the self-care orem nursing theory (Nursalam, 2020). Self-care is the application of a person's activities to shape their behavior in the interests of maintaining life, providing

healthy functioning, continuing personal development and well-being by meeting known requirements for functional regulation and development. If self-care can be applied effectively it can help improve the patient's quality of life (Marta Raile Alligood 2017). Providing educational system interventions is one way that nurses can help patients with breast cancer receiving hospital treatment live more independently and with a higher quality of life (Wang, Yin, and Jia 2019). The aim of this research is to analyze the application of an OREM self-care based education system to improve the quality of life of breast cancer chemotherapy patients at Graha Amerta Surabaya.

## METHOD

The design used in this research was a pre-experimental one-group pre-posttest method. The population in this study were all 68 breast cancer patients who were being treated at the Graha Amerta Building from October to December 2023. The sample in this study was 60 breast cancer patients who met the following inclusion criteria: Breast cancer patients with chemotherapy therapy being treated at Graha Amerta, aged > 18 years-60 years, the patient is conscious and not in a coma, does not experience cognitive impairment, hearing impairment or speech impairment, and the patient agrees to be a respondent for research taken using consecutive sampling technique. The instruments used in this research were the activity event unit (SAK) as a guide in carrying out interventions and the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ-C30) questionnaire to measure the quality of life of cancer patients. This research was carried out from October 2023 to December 2023. The intervention for implementing an OREM-based self-care education system was carried out in 3 sessions, 1 session in 3 weeks and each session was carried out for 30-40 minutes. The first session is providing health education regarding breast cancer, the second session is providing health education regarding the patient's quality of life and the third session is evaluating session one and session two. In each session one and session two, patients are always given the opportunity to convey various problems they are facing and researchers always provide support and guidance which is expected to improve the patient's quality of life. The location of the research was Graha Amerta Surabaya. The data was processed and tested using the Wilcoxon signed rank statistical test. This research has passed the ethical test from RSUD Dr

Soetomo Surabaya with ethical number 0777/KEPK/IX/2023.

## RESULTS

### Respondent Characteristics

Table 1. Distribution of demographic characteristics of research respondents

Characteristics	Category	Frequency (f)	Percentage (%)
Gender	female	60	100
Age	36-45 year	14	23.3
	56-65 year	21	35.0
	46-55 year	25	41.7
Education	primary school	2	3.3
	Senior High School	13	21.7
	Junior High School	4	6.7
	Bachelor	39	65
	Master	2	3.3
Marital status	Single	2	3.3
	Widow	2	3.3
	Married	56	93.3
Job status	Government employees	14	23.3
	Entrepreneur	28	46.7
	Unemployment	18	30.0
Income	1 - 2 million	2	3.3
	3 - 4 million	4	6.7
	≥ 4 million	38	63.3

Based on the data presented in Table 1, it contains demographic data information from 60 breast cancer patients undergoing chemotherapy at Graha Amerta Surabaya. All respondents were female, namely 60 (100%), almost half of the respondents 25 (41.7%) were early elderly, namely (46-55 years), most of the respondents 39 (65%) had a bachelor's degree, the majority 56 respondents (93.3%) were married, almost half of 28 respondents (46.7%) worked in the private sector, and most of 38 respondents (63.3%) had income ≥ 4 million. The patient's quality of life before intervention is given

Table 2. Quality of life of breast cancer chemotherapy patients at Graha Amerta Surabaya before being given intervention

Category	Pre test	
	Frequency (f)	Percentage (%)
Bad	7	11.7
Enough	36	60.0
Good	17	28.3

Based on table 2, it can be seen that before the intervention in implementing the self-care orem-based education system, the majority of respondents, namely 36 (60%) had a quality of life in the fair category, some respondents 17 (28.3%) had a quality of life in the good category and a small number of respondents 7 (28.3%) had a quality of life in the good category. 11.7%) had quality of life in the poor category.

### Quality of Life of Patients After Being Given Intervention

Table 3. Quality of life of breast cancer chemotherapy patients at Graha Amerta Surabaya after being given intervention

Category	Post test	
	Frequency (f)	Frequency (f)
Bad	0	0.0
Enough	21	35.0
Good	39	65.0

Based on table 3, it can be seen that after being given the intervention to implement an educational system based on self-care orem, the majority of respondents, namely 39 (65%) had a quality of life in the good category and some respondents 21 (35%) had a quality of life in the fair category.

## DISCUSSION

Breast cancer patients experience a range of changes in their quality of life, including physical changes brought on by the disease's changing shape and condition of the breasts as well as pain; psychological changes brought on by depressive, anxious, and low self-esteem; social aspects brought on by the patient's lack of confidence and social stigma; and spiritual aspects (Richter-Ehrenstein and Martinez-Pader 2021). Breast cancer is currently one of the most commonly diagnosed cancers and the 5th cause of cancer-related deaths with an estimated number of 2.3 million new cases worldwide (Globocan 2020). Deaths due to breast cancer are more commonly reported with an incidence rate of

around 88% higher in developing countries (WHO 2021). There are a number of steps that can be taken to reduce the occurrence of breast cancer and to adopt early treatment in order to decrease breast cancer-related fatalities. These steps include general preventative behavior, health education, and screening programs (Łukasiewicz et al. 2021).

One of the treatments for patients with breast cancer is giving chemotherapy treatment and the dose of chemotherapy is adjusted to the patient's physical condition, body weight, age and other comorbidities (Folorunso et al. 2023). Chemotherapy generally causes several side effects in patients. Side effects can range from mild to severe, depending on the type and extent of treatment and other individual factors (Pakmanesh, Moslemi, and Mahjoub 2020). Patients who receive chemotherapy frequently report side effects such as left ventricular diastolic dysfunction, tachycardia, alopecia, nail darkening, headaches, dizziness, and hematological effects like neutropenia and anemia. They also report changes in abdominal ultrasound diagnosis. Women undergoing chemotherapy have 3.6 times higher odds of experiencing major side effects associated to chemotherapy and statistically significant higher odds of experiencing each of the eight serious side effects related to chemotherapy. (Hassett et al. 2006; Kodati et al. 2019).

The results of research from Kabirian et al., (2023) on 1636 breast cancer patients undergoing chemotherapy treatment showed that premenopausal women with breast cancer often experience persistent amenorrhea related to chemotherapy and a decrease in quality of life due to the side effects of chemotherapy, therefore the effects Side effects of chemotherapy in patients with breast cancer require serious prevention. Strengthened by the results of research from Hassen et al., (2019) on 404 breast cancer patients undergoing chemotherapy, the majority of patients had a decline in their quality of life, particularly in the areas of emotional, sexual, and physical function (e.g., weariness) as well as patient financial troubles (e.g., financial difficulties).

In order to prevent their quality of life from declining further, people with breast cancer receiving chemotherapy need to receive extra care. It has been demonstrated that a variety of interventions can be used to gradually improve the quality of life for patients with breast cancer. These interventions include aromatherapy therapy, yoga, nutritional education, and information about breast cancer and how to treat it at home. (Cheong et al. 2022).

The intervention for implementing system education is the provision of health education given to patients with the hope of increasing the patient's knowledge about a disease and its treatment so that patients can carry out treatment independently (Nursalam, 2020). Orem introduced the supportive educative theory for the first time in 1971. This intervention has 3 aspects in its implementation including support, teaching and guidance ) (Marta Raile Alligood 2017). Health education is essential for patients with chronic illnesses in order to help them and their families become self-sufficient. By learning about the illness and the treatment options available to them, patients' quality of life will gradually improve (Bana et al. 2020).

The results of research from Zaheer et al., (2020) state that providing health education interventions and providing support has a significant influence on reducing anxiety and depression in breast cancer patients during radiation therapy so that it can indirectly improve their quality of life. Supported by research results from Shahsavari et al., (2015), it is stated that providing health education interventions regarding independent self-care significantly improves the patient's quality of life in stages related to the physical dimension, psychological dimension, social dimension and emotional dimension. Therefore, providing health education interventions regarding independent care at home is very important for nurses to provide breast cancer patients so that patients are more independent in caring for their disease.

The meta-analysis results of Martínez-Miranda et al., (2021) declare that patient education lowers cancer patients' symptoms of weariness and has a major impact on patients' quality of life, including emotional components of it. Researchers feel that it is critical for medical professionals, particularly nurses, to educate people about health issues related to breast cancer. This is due to the fact that numerous studies have demonstrated the value of health education in improving the quality of life for individuals with breast cancer.

## CONCLUSION

The intervention of implementing an educational system based on self-care orem is effective in improving the quality of life of breast cancer patients undergoing chemotherapy intervention.

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