

## THE EFFECT OF EDUCATION ON QUALITY OF LIFE OF BREAST CANCER PATIENTS WITH FAMILY ASSISTANCE AND TREATMENT COMPLIANCE AS A MEDIATION VARIABLE

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### ABSTRACT

*Breast cancer is the most common type of cancer compared to other types of cancer. Breast cancer can have a psychological impact from the early diagnosis. In addition, the side effects of cancer modality therapy can also affect the psychology of patients and families. The purpose of this study was to analyze the effect of providing education on the quality of life of breast cancer patients with family assistance and medication adherence as mediating variables at the "Dharmais" Cancer Hospital. Quality of life is a subjective measure that describes happiness and freedom for an individual and how good or bad a person is. Health education is an important tool for fostering patient empowerment and encouraging their contribution to disease control. Family companion is a form of interpersonal relationship that protects a person from the effects of bad stress. Obedience comes from the root word obedient which means to obey, like to obey orders. Types of correlational research. The population is 1,174 and the sample is 291, using purposive sampling technique and proportional random sampling. Validity test using Pearson product moment. Reliability test using Cronbach alpha. Data collection techniques using questionnaires and statistical analysis of simple and multiple linear regression. The results showed that the average value of providing education, family assistance, medication adherence and quality of life was high. There was an effect of providing education ( $p=0.000$ ), family assistance ( $p=0.001$ ) and medication adherence ( $p=0.000$ ) on the quality of life. The conclusion shows that there is the provision of education, family assistance and medication adherence to the quality of life. So it is suggested that the hospital can pay more attention to improving the quality of life such as doing health promotion.*

### ABSTRAK

**Kata Kunci:**  
memberikan  
pendidikan;  
bantuan keluarga;  
kepatuhan minum  
obat; kualitas  
hidup.

Kanker payudara merupakan jenis kanker yang paling umum dibandingkan dengan jenis kanker lainnya. Kanker payudara dapat memberikan dampak psikologis sejak diagnosis dini. Selain itu, efek samping terapi modalitas kanker juga dapat mempengaruhi psikologi pasien dan keluarga. Tujuan penelitian ini adalah untuk menganalisis pengaruh pemberian edukasi terhadap kualitas hidup pasien kanker payudara dengan pendampingan keluarga dan kepatuhan minum obat sebagai variabel mediasi di Rumah Sakit Kanker "Dharmais". Kualitas

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hidup adalah ukuran subjektif yang menggambarkan kebahagiaan dan kebebasan bagi seorang individu dan seberapa baik atau buruknya seseorang. Pendidikan kesehatan adalah alat penting untuk mendorong pemberdayaan pasien dan mendorong kontribusi mereka untuk pengendalian penyakit. Pendamping keluarga adalah bentuk hubungan interpersonal yang melindungi seseorang dari efek stres yang buruk. Ketaatan berasal dari akar kata patuh yang berarti patuh, suka menuruti perintah. Jenis penelitian korelasional. Populasi sebanyak 1.174 dan sampel sebanyak 291, menggunakan teknik purposive sampling dan proportional random sampling. Uji validitas menggunakan product moment Pearson. Uji reliabilitas menggunakan Cronbach alpha. Teknik pengumpulan data menggunakan angket dan analisis statistik regresi linier sederhana dan berganda. Hasil penelitian menunjukkan bahwa nilai rata-rata pemberian pendidikan, pendampingan keluarga, kepatuhan minum obat dan kualitas hidup tergolong tinggi. Ada pengaruh pemberian pendidikan ( $p=0,000$ ), pendampingan keluarga ( $p=0,001$ ) dan kepatuhan minum obat ( $p=0,000$ ) terhadap kualitas hidup. Kesimpulan menunjukkan bahwa ada pemberian pendidikan, pendampingan keluarga dan kepatuhan minum obat terhadap kualitas hidup. Sehingga disarankan agar pihak rumah sakit dapat lebih memperhatikan peningkatan kualitas hidup seperti melakukan promosi kesehatan.

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## Introduction

The incidence of new cancer cases in the world in 2020 is 19.3 million cases, with a death rate of 10.65 million, while new cases of breast cancer in the world are 2.27 million (11.7%) (Mardhotilla et al., 2020). New cases of cancer in Southeast Asia based on Globocan South East Asia were 1.1 million with a death rate of 689 thousand cases. In Indonesia, the prevalence of cancer based on doctor's diagnosis at all ages is 1.79 per mile (Indra & Saputra, 2021), while according to Globocan Indonesia in 2018, new cancer cases were 348,809.

Breast cancer is a malignancy in breast tissue that can originate from the ductal epithelium or its lobules. The incidence of new cases of breast cancer in 2020 in the world based on Globocan was 2.26 million (24.5%) and in Southeast Asia 158939 (27.7%). In Indonesia, based on Globocan 2018, breast cancer was 58,256 cases. Based on the data above, breast cancer is the most common type of cancer compared to other types of cancer.

Based on Pathological Based Registration in Indonesia, Breast Cancer ranks first with a relative frequency of 18.6%. (Manila et al., 2021). Shows an increase in the number of breast cancer cases by 1480–1777 (20%) in 2015-2019 data from the "Dharmais" Cancer Hospital.

Family support has a significant relationship to patient compliance. This is also in accordance with the results of research conducted by (Reza et al., 2019) There is a significant relationship between family support and compliance with breast cancer patients. Family companion is the most important element in helping individuals undergo treatment. If there is support, self-confidence will increase and motivation to deal with problems that will occur will increase (Tamher, 2009). One of them faced a diagnosis of breast cancer.

Social support can be done by family members, colleagues, community, professionals, social communities or volunteers, who serve as companions for cancer patients so that these patients can

understand their emotions, fears, anxiety and exchange information about treatments and treatments that will, are currently or have been done. lived it.

In addition, patients who received high social support showed better adjustment. Therefore, it is necessary to provide education to patients and their families in the problem of breast cancer. One way to improve the patient's quality of life is by providing education or it can also be called health education. Education is all planned efforts to influence other people, whether individuals, groups or communities so that they do what is expected by education actors (Nomiko et al., 2021).

Patient and family education is a business or activity carried out in order to provide information on patient health problems that are not known to the patient and his family. While this needs to be known to help and support medical management or other health workers (Suliha & Resnayati, 2019). The education provided is an explanation regarding the patient's medical condition. Types of education:

1. Formal, Formal education is a learning process carried out in a formal educational institution such as a school.
2. Non-Formal, Non-formal education is a learning process that aims to add, replace and complement formal education.
3. Informal, is a learning or education that is near and around us, such as family and community.

Education for cancer patients has an important role and aims to provide information related to the illness, treatment program and patient's lifestyle after being diagnosed with cancer. The importance of providing education to cancer patients before patients receive therapy so that patients better understand the treatment plan and the effects of any actions that can affect the patient's physical and psychological.

In the period from January to September 2020 in the systemic therapy room at the Dharmais Cancer Hospital, it was found that 43.19% of patients did not come for chemotherapy. This is caused by the absence of families who accompany patients in undergoing treatment and patients from outside the city who experience obstacles to seek treatment at the hospital. Breast cancer patients have difficulty taking care of themselves so that the presence of the family can ease the patient's burden. Patients without family assistance tend to be unmotivated and depressed when undergoing treatment. Patient compliance for treatment and family support can be supported by providing education by medical personnel to increase awareness of the importance of compliance and family support. Education is carried out before and after patients take treatment, but there are still patients who are less compliant in treatment and families who still do not care about patients. This can affect the quality of life of breast cancer patients. Patients who have knowledge about things that can improve their health tend to have a good quality of life, therefore education is needed. Many breast cancer patients still have poor quality of life due to lack of knowledge of the importance of compliance and families who are less active in treating patients.

Based on the description above, the researcher is interested in conducting research with the title "The Effect of Providing Education on Quality of Life for Breast Cancer Patients with Family Assistance and Medical Compliance as Mediation Variables at the Cancer Hospital "Dharmais".

### **Research Methods**

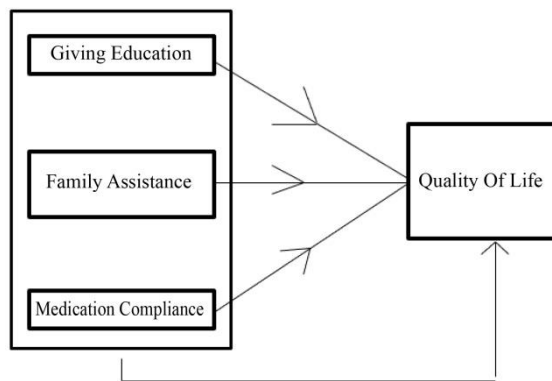
This study uses the type of correlational research, the type of correlational research is research conducted by researchers to determine the level of relationship between two or more variables, without making changes, additions or manipulations to data

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that already exists (Gresik, 2016). Based on the hypothesis that has been prepared by the researcher, there are 4 research variables to be studied, namely the provision of education, family assistance, medication adherence and quality of life.

The constellation model of this research is as follows:

**Figure 1**  
**Research Constellation Model**



Information:

- = Factors to be investigated
- = There is Influence

**1. Sampling technique**

The research sample in this study was taken using purposive sampling and proportional random sampling techniques. Purposive sampling technique

is a sampling technique of data sources with certain considerations (Rahmadhani, 2019). Calculation of sampling using proportional random sampling is presented in the table below:

**Table 1**  
**Proportional Random Sampling Calculation Data**

No	Room	Calculation	Results per Room
1	Anggrek 1	$28/1174 \cdot 291$	7
2	Anggrek 2	$279/1174 \cdot 291$	69
3	Mawar 1	$238/1174 \cdot 291$	59
4	Mawar 2	$122/1174 \cdot 291$	30
5	Cempaka	$259/1174 \cdot 291$	64
6	Melati	$248/1174 \cdot 291$	62
<b>Total</b>			<b>291</b>

**Data collection technique**

The data collection method in this study used drop scoring in the form

of a questionnaire. According to (Usman et al., 2021) a questionnaire means a series of questions related to a particular topic given to a group of individuals with the intention of obtaining data. The purpose of distributing the questionnaire is to collect data from the responses to the questionnaire, so that the data obtained is accurate (valid and reliable). The measuring instrument used in this study is a modification of the Perceived Social Support Questionnaire Family (PSS-Fa) questionnaire to measure family assistance and to measure medication adherence and modification of the EORTC QLQ-C30 questionnaire to measure quality of life.

Validity and reliability tests were carried out on the results of questionnaires filled out by 30 respondents and carried out using SPSS for Windows version 26.0, where decision making on the validity test was carried out based on the value of  $r$  arithmetic  $> r$  table of 0.361, for  $df = 30 - 2 = 28$ ;  $\alpha = 0.05$  and reliability test using Cronbach alpha.

Based on the results of the validity test that has been carried out, it is known that all items have a value of  $r$  arithmetic  $> r$  table so that they are declared valid and can be included for further data analysis.

**B. Reliability Test**

The complete reliability test results can be seen as follows:

**Results And Discussion**

**Research Result**

**A. Validity and Reliability Test Results**

**Table 1**  
**Reliability Test Results**

Variabel	Value	Reliability Index
Giving Education	0,905	Very strong
Family Assistance	0,911	Very strong
Medication Compliance	0,906	Very strong
Quality of Life	0,955	Very strong

Based on the results of the validity tests that have been carried out, it is known that all variables are in the reliability index between 0.90-1.00 or are in the very strong range.

The provision of education becomes a stimulus to provide information about the problems faced so as to increase the knowledge possessed by individuals. The provision of education either through health education, counseling, counseling or through media such as posters, leaflets or videos will still have an influence on the level of individual knowledge. Knowledge, attitude and practice are processes that individual usually go through in shaping and changing behavior, including their behavior towards health (Meidiana et al., 2018).

**Discussion**

**1. The Effect of Education on Quality of Life**

The results showed that there was an effect of providing education on the quality of life of breast cancer patients at Dharmais Cancer Hospital. The results of correlation and determination analysis also show that the effect of providing education to breast cancer patients at Dharmais Cancer Hospital is very strong and positive (unidirectional).

According to researchers, the provision of education affects the quality of life of the individual. Providing

education will provide knowledge to individuals in managing their problems, including in terms of health. In addition, the knowledge gained, especially regarding the problems at hand, will give individuals confidence to take good actions and know what is good for themselves. This will certainly improve the quality of life you have.

## 2. The Effect of Family Assistance on Quality of Life

The results showed that there was an effect of family assistance on the quality of life of breast cancer patients at Dharmais Cancer Hospital. The results of correlation and determination analysis also show that the effect of family assistance on breast cancer patients at Dharmais Cancer Hospital is very strong and positive (unidirectional).

One of the roles of the family is to be the main companion and supporter for individuals in the process of treating their illness. In the research of (Nomiko et al., 2021) it was also mentioned that family assistance in seeking treatment to health services was the most dominant category of family support carried out. The support provided by the family is believed to increase self-confidence and motivation in individuals in dealing with problems, including health problems. In addition, a sense of love, a sense of protection and a sense of comfort arising from the family support provided also has an effect on reducing stress and depression levels that may arise in individuals so that they determine their quality of life (Oktaviani & Purwaningsih, 2020).

According to the researcher, family assistance has an effect on the quality of life of an individual. the assistance provided by the family can provide strength, enthusiasm and calm to sick individuals. This will affect the individual's coping and adapt to existing

stressors, so that it will also improve the quality of life they have.

## 3. Effect of Medication Compliance on Quality of Life

The results showed that there was an effect of medication adherence on the quality of life of breast cancer patients at Dharmais Cancer Hospital. The results of correlation and determination analysis also showed that the effect of medication adherence on breast cancer patients at Dharmais Cancer Hospital was strong and positive (unidirectional).

The treatment process carried out by cancer patients is not always a positive effect. The occurrence of physical changes from the disease and the course of the treatment process itself can affect the quality of life of the individual. In this regard, the quality of life is an important thing that needs to be considered and anticipated to maintain their welfare. Having a reciprocal relationship, Bayram, Durna & Akin revealed that when individuals have had a good quality of life during their treatment, it will increase their adherence to the treatment that needs to be done (Nomiko, 2020).

According to the researcher, medication adherence will affect the quality of life of the individual. The individual's adherence to treatment, either from taking medication or following the recommended therapy, will provide good benefits for the individual. This is of course the quality of life that individuals have will affect the quality of life that is getting better too.

## 4. The Effect of Education, Family Assistance and Compliance with Treatment on Quality of Life

The results showed that there was an effect of providing education, family

assistance and treatment compliance on the quality of life of breast cancer patients at Dharmais Cancer Hospital. The results of correlation and determination analysis also show that the effect of providing education, family assistance and medication adherence on the quality of life of breast cancer patients at Dharmais Cancer Hospital is very strong and positive (unidirectional).

Attitude change is also one of the goals of providing education. Positive and negative attitudes that individuals have can be influenced by internal factors that come from themselves. In addition, as for external factors that can affect individual attitudes, namely the influence of other people who can be received from messages conveyed in the form of providing education. By providing the right education, individuals can gain knowledge and influence their attitudes in making decisions (Sherina et al., 2021). In this case, the health education received by the individual can affect his attitude in making decisions, one of which is in terms of care to maintain his quality of life.

Family assistance in treatment will also make individuals have positive perceptions or views about the treatment they are doing (Rosidin et al., 2020). In this regard, the role of the family in care will also increase individual compliance in their treatment (Aristawati et al., 2020). Family assistance as a motivator, giver of attention and even a reminder of the individual on his treatment schedule will give positive results on the health condition and well-being of the individual.

Compliance with individual treatment is also an important thing that needs to be considered. Compliance will greatly affect the quality of life they have, including breast cancer patients.

Where when breast cancer sufferers do not take treatment obediently, it will have an impact on cancer cells that can spread to other organs that are still healthy in the body so that it affects their normal function (Saputra & Suharsono, 2021).

Based on this, it can be concluded that the better the education received, the better the assistance the family has and the more obedient in taking treatment, the better the quality of life they have, and vice versa.

### Conclusions

Most of the respondents have received good education, good family assistance, good medication adherence and good quality of life. There is an effect of providing education on the quality of life of breast cancer patients at Dharmais Cancer Hospital. There is an effect of family assistance on the quality of life of breast cancer patients at Dharmais Cancer Hospital.

There is an effect of medication adherence on the quality of breast cancer patients at Dharmais Cancer Hospital. There is an effect of providing education, family assistance and treatment adherence significantly affect the quality of life of breast cancer patients at Dharmais Cancer Hospital.

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