Research Article

The Relationship Between Family Support and Quality of Life in Breast Cancer Patients Undergoing Chemotherapy at Dr. Adhyatma Regional General Hospital, MPH, Central Java

Laesya Putri Ilmi Afifatul Ulya[1]*, Dwi Retnaningsih[2]

[1-2] Bachelor of Nursing, Universitas Widya Husada Semarang, Indonesia
* Corresponding Author : laesyaputri20@gmail.com

Abstract. Breast cancer is a disease that occurs when cells in the breast tissue begin to grow and divide uncontrollably, forming lumps or masses. Chemotherapy causes various side effects that reduce the quality of life of patients. Family support plays an important role in improving the quality of life of breast cancer patients. The purpose of this study was to determine the relationship between family support and quality of life in breast cancer patients undergoing chemotherapy at RSUD dr. Adhyatma, MPH Central Java. The type of research used was quantitative non-experimental with a cross-sectional approach. The sample in this study was 38 respondents determined by purposive sampling technique. Data analysis used the Spearman rank test. Most respondents received good family support (57.9%), the quality of life of respondents was quite good (55.3%). There was a significant relationship between family support and quality of life in breast cancer patients undergoing chemotherapy at RSUD dr. Adhyatma, MPH (p-value 0.000) with a correlation coefficient value of 0.569. Families are expected to provide insight into the importance of family support in the quality of life of cancer patients, especially those undergoing chemotherapy.

Keywords : Breast Cancer; Chemotherapy; Family Support; Patient Care; Quality of Life.

1. Background

Breast cancer, also known as *carcinoma mammae* , is a malignant tumor (abnormal lump) that grows in breast tissue (Suparna & Sari, 2022) . Breast cancer occurs when cells in the breast tissue begin to grow and divide uncontrollably, forming a lump or mass. Most breast cancers begin in the lobes, which are glands or ducts that connect them to the nipple (ACS, 2022).

Breast cancer ranks first in terms of the number of cancer cases in Indonesia and is one of the leading causes of death from cancer. In 2022, there were 670,000 deaths and 2.3 million women diagnosed with breast cancer worldwide (WHO, 2024) . Globocan data from 2020 showed the number of new cases of breast cancer reached 68,858 cases (16.6%) of the total 396,914 new cases of cancer in Indonesia. Meanwhile, the number of deaths reached more than 22,000 cases (Ministry of Health, 2022) . According to data from the Central Java Health Office (Dinkes), breast cancer cases in the province continue to increase. In 2021, there were 8,287 cases, while in 2022 the number rose to 10,530 cases, or an increase of around 27 percent (Diskominfo Jateng, n.d.).

Chemotherapy is the primary treatment for breast cancer patients, but it causes various side effects such as nausea, vomiting, fatigue, and decreased immunity, which impact physical, psychological, social, and spiritual aspects, thus reducing the patient's quality of life (Afifah, 2020) . A good quality of life is important to support the healing process and patient well-being (Noviarini, 2013) in (Lase & Hasibuan, 2023) . Therefore, social support, especially from family, is essential in the care of breast cancer patients (Irma et al., 2022).

Family support plays a crucial role in improving the quality of life for breast cancer patients, particularly in emotional, social, and daily activities (Sesrianty et al., 2023). This support can take the form of attention, active involvement in treatment, maintaining chemotherapy adherence, providing time, providing information, and motivating patients. With this support, patients feel more psychologically energized, motivated to continue therapy, and able to achieve a better quality of life (Jayanti & Cahyono, 2023).

Based on a preliminary study conducted through interviews with five breast cancer patients undergoing chemotherapy at Dr. Adhyatma Regional General Hospital, MPH, it was apparent that the level of family support received by patients varied. Patients who received good family support, such as assistance during treatment, assistance with daily activities, and emotional and motivational support, generally demonstrated more stable psychological conditions and a higher quality of life, despite the side effects of chemotherapy. On the other hand, patients with suboptimal family support experienced anxiety, sadness, and loss of motivation, which ultimately contributed to a decline in their quality of life.

2. Theoretical Study

Breast cancer is a condition in which cancer cells grow in breast tissue. This type of cancer generally begins in the milk ducts or lobules, the glands responsible for producing milk (Ministry of Health, 2024) . Conceptually, the exact cause of breast cancer remains unknown. However, breast cancer is a multifactorial disease, with various contributing factors, including age, genetics and family history, reproductive and hormonal history, and lifestyle (Suparna & Sari, 2022).

According to *the World Health Organization* (WHO, 2023) management of breast cancer, namely breast surgery, is a very important surgical service in breast cancer treatment, radiation therapy aims to damage or destroy cancer cells that may remain after surgery, drug therapy is selected based on the biological characteristics of cancer identified through certain tests, such as determining tumor markers.

Chemotherapy is a cancer treatment that uses drugs to stop the growth of cancer cells, either by killing the cells directly or by inhibiting cell division (Yanti et al., 2021). The severity of chemotherapy side effects varies depending on several factors, such as the type of chemotherapy drug used, the patient's physical condition, including weight and age, and their psychological state. Some side effects that may occur during chemotherapy include hair loss, anemia, fatigue, risk of bleeding and infection, mouth ulcers or sores, nausea and vomiting, pain, and disruption of hormone production (Parasian et al., 2024).

Quality *of life (QoL)* is a concept that analyzes an individual's ability to live a normal life, related to personal perceptions of goals, expectations, standards, and specific concerns regarding life experiences. This is influenced by the values and culture within the individual's environment (Nursalam, 2020) . QoL encompasses four domains: physical health, psychological well-being, social relationships, and the environment. These four aspects are interconnected and play a vital role in determining an individual's overall well-being, as defined by the WHO (Ichsan & Alfridsyah, 2022).

Family support is a form of interpersonal relationship that includes attitudes, actions, and acceptance of family members, so that family members feel the need for such support (Margareth & Siburian, 2024) . According to Friedman in (Rahmawati & Rosyidah, 2020) there are four types of family support: informational support, appraisal or appreciation support, instrumental support, and emotional support.

3. Research Methods

The type of research used in this study is quantitative non-experimental with a *cross-sectional approach.* The population in this study were breast cancer patients undergoing chemotherapy at RSUD dr. Adhyatma, MPH, totaling 42 respondents in the last month. To determine the sample size of the population, *a purposive sampling technique was used*, namely a sample selection method carried out by selecting individuals from the population according to the inclusion criteria desired by the researcher. Based on these calculations, the minimum sample required in this study was n = 38 respondents. This study was conducted in October 2025 at RSUD dr. Adhyatma, MPH, Central Java. The research

ethics test was carried out at RSUD dr. Adhyatma, MPH and has been declared suitable for research with No. 84 / KEPK.EC / IX / 2025.

The instruments used in this study were the family support questionnaire and the *World Health Organization Quality of Life* (WHOQOL) BREF questionnaire. The questionnaire used to measure family support was developed by (Nursalam, 2020) and has been tested for validity and reliability by (Wardani, Okti, & Agus, 2011) . The family support measurement tool consists of 15 question items. The questionnaire used to assess quality of life is *the World Health Organization Quality of Life* (WHOQOL) BREF model, which consists of 26 questions. The WHOQOL-BREF questionnaire is one of the instruments for measuring quality of life developed by WHO. Which has been tested for validity and reliability by previous researchers (Munawarah et al., 2019).

4. Results and Discussion

Results

The results obtained from data collection using a questionnaire to determine the relationship between family support and quality of life in breast cancer patients undergoing chemotherapy at Dr. Adhyatma Regional General Hospital, MPH, Central Java, are as shown in the table below:

Table 1 Frequency Distribution of Respondents by Age.

Age	Frequency	Percentage (%)
< 36 years	3	7.9
36 – 45 years old	10	26.3
46 – 55 years old	10	26.3
56 – 65 years	11	28.9
> 65 years	4	10.5
Total	38	100

Based on table 1 above, it shows that the age of the respondents with the most age is 56-65 years, as many as 11 respondents (28.9%).

Table 2 Frequency Distribution of Respondents Based on Education.

Education	Frequency	Percentage (%)
No school	1	2.6
Elementary School	13	34.2
JUNIOR HIGH SCHOOL	7	18.4
SENIOR HIGH SCHOOL	11	28.9
College	6	15.8
Total	38	100

Based on table 2 above, it can be seen that the highest level of education of respondents was elementary school education, with 13 respondents (34.2%).

Table 3 Frequency Distribution of Respondents Based on Occupation.

Work	Frequency	Percentage (%)
civil servant	1	2.6
Private	7	18.4
Trader	4	10.5
Farmer	2	5.3
housewife	24	63.2
Total	38	100

Based on table 3 above, it can be seen that the most common occupation of respondents was as a housewife (IRT) with 24 respondents (63.2%).

Table 4 Frequency Distribution of Respondents Based on Marital Status.

Marital status	Frequency	Percentage (%)
Marry	28	73.7
Not married yet	1	2.6
Widow	9	23.7
Total	38	100

Based on table 4 above, it shows that the most common marital status of respondents was married, with 28 respondents (73.7%).

Table 5 Frequency Distribution of Respondents Based on Cancer Stage.

Cancer Stage	Frequency	Percentage (%)
II	18	47.4
III	13	34.2
IV	7	18.4
Total	38	100

Based on table 5 above, it can be seen that the most common stage of cancer among respondents was stage II, with 18 respondents (47.4%).

Table 6 Frequency Distribution of Respondents Based on Level of Family Support.

Family Support	Frequency	Percentage (%)
Good	22	57.9
Enough	16	42.1
Total	38	100

Based on table 6 above, it can be seen that of the 38 respondents who received family support in the good category, there were 22 respondents (57.9%).

Table 7 Frequency Distribution Based on Quality of Life Level.

Quality of Life	Frequency	Percentage (%)
Good	11	28.9
Pretty good	21	55.3
Pretty bad	6	15.8
Total	38	100

Based on table 7 above, it shows that of the 38 respondents, the results of the quality of life of breast cancer patients at RSUS Dr. Adhyatma, MPH were mostly quite good, as many as 21 respondents (55.3%).

Table 8 Relationship between Family Support and Quality of Life.

Support Family	Quality of Life				Sig	Rho
	Good	Pretty good	Pretty Bad	Bad		
	F	F	F	F		
Good	10	12	0	0		
Enough	1	9	6	0	0,000	0.569
Bad	0	0	0	0		
Total	11	21	6	0		

Based on table 8 above shows the results of the Spearman Rank Test that has been conducted regarding family support with quality of life in breast cancer patients undergoing chemotherapy at RSUD dr. Adhyatma, MPH obtained the results of the P value of 0.000 ≤ 0.05 then Ho is rejected and Ha is accepted which means there is a relationship between family support and quality of life in breast cancer patients undergoing chemotherapy at RSUD dr. Adhyatma, MPH. In the Spearman Rank test, the results of the correlation coefficient (r) value of 0.569 were obtained which indicates that the strength of the correlation is moderate with a positive direction and the correlation is in the same direction.

Discussion
Family Support
The results of the study indicate that the majority of respondents had good family support, with 22 respondents (57.9%). This indicates that the majority of breast cancer patients at Dr. Adhyatma Regional General Hospital, MPH, received good family support. This study aligns with research by Rahmiwati et al., 2022, which found that the majority of respondents received good family support, with 16 respondents (53.3%). This study is also supported by research by Yoga et al., 2024, which found that the majority had good family support, with 28 respondents (93.3%).

According to research (Rahmiwati et al., 2022), good family support provides emotional support and appreciation, making patients feel cared for and loved by their family members, ultimately increasing their hope for the future. Family support is a crucial factor for a person, as it makes patients feel valued, less isolated, and can boost their self-confidence (Sembiring et al., 2022) .

Cancer patients undergoing chemotherapy really need support from family and friends, as this serves as the best motivation for them during treatment (Puspita et al., 2023) . Patients who receive strong family support tend to experience lower depressive symptoms, higher adherence to chemotherapy schedules, and a better quality of life (Retnaningsih et al., 2026).

Quality of Life

The results of the study showed that the majority of respondents' quality of life was categorized as quite good, with 21 respondents (55.3%). This is in line with research by Arsy et al., 2024, which found that the majority of respondents with breast cancer had a fair quality of life, with 21 respondents (60%). This finding is also in line with research by Paji et al., 2021 , which showed that the majority of breast cancer patients had a fair quality of life, with 52 respondents (74.3%).

Quality of life refers to an individual's ability to enjoy life satisfaction while functioning physically, spiritually, psychologically, and socially. To improve a patient's quality of life, they must feel secure in their environment through family support that makes them feel loved, cared for, and cared for (Lase et al., 2023) . Optimal quality of life is crucial for achieving good health and maintaining optimal physical function and ability over the long term. Individuals with a high quality of life tend to have a strong motivation to recover and are able to improve their health. Conversely, a decline in quality of life will reduce the desire to recover (Rosa et al., 2022).

The Relationship Between Family Support and Quality of Life in Patients Undergoing Chemotherapy at Dr. Adhyatma Regional General Hospital, MPH, Central Java

The results of the Spearman Rank test on the relationship between family support and quality of life in breast cancer patients undergoing chemotherapy at Dr. Adhyatma, MPH Regional General Hospital showed bivariate analysis results with a p-value of 0.000 ≤ 0.05 which can be concluded that there is a relationship between family support and quality of life, meaning that the higher the family support, the higher the quality of life of breast cancer patients undergoing chemotherapy with a correlation coefficient (r) of 0.569 in the moderate category.

This research is supported by research (Jayanti et al., 2023) which showed a relationship between family support and quality of life in breast cancer patients undergoing chemotherapy with a p-value of 0.000 < 0.05. This research is in line with research conducted by (Bagiyo & Siswantoro, 2022) which showed a significant relationship between family support and quality of life in cancer patients undergoing chemotherapy with a p-value of 0.023 < 0.05.

Family support is one of the factors that positively contributes to the quality of life of cancer patients, where this support can take the form of attention or active involvement in the treatment and therapy process. Family members also play a role in motivating patients to maintain their condition during chemotherapy. Good family support will help patients' psychological well-being (Jayanti et al., 2023) . Family support for their family members can be moral or material. The presence of this support will increase patients' self-confidence during the treatment process (Rusmiati, & Maria, 2023).

Good family support and adequate quality of life in cancer patients are reflected in the presence of informational support, assessment support, instrumental support, and emotional support. A good quality of life in breast cancer patients is often supported by the family, so psychological, social, and environmental indicators do not pose problems. The involvement of family members in motivating patient maintenance and an active role in treatment can increase the patient's confidence in achieving recovery (Sesrianty et al., 2023).

The quality of life of cancer patients is influenced by various factors, including family support. Patients who receive family support demonstrate greater pain tolerance, lower stress levels, greater acceptance of their condition, and positive interactions with their environment, all of which can inhibit the development of cancer cells (Irma et al., 2022) . According to (Bagiyo & Siswantoro, 2022), improving the quality of life of breast cancer patients undergoing chemotherapy can reduce complications associated with the disease. Furthermore, chemotherapy will be considered a beneficial therapy and a form of high-quality nursing care if it results in an improvement in the patient's quality of life.

A good quality of life is influenced by family support during chemotherapy, as this approach considers the family's spirituality to create stronger motivation and support. Furthermore, incorporating family support into care is a crucial step in further improving the quality of life and resilience of breast cancer patients (Retnaningsih et al., 2025).

5. Conclusion And Suggestions

The results of the study showed a relationship between family support and quality of life in breast cancer patients undergoing chemotherapy at Dr. Adhyatma, MPH Regional General Hospital. This is evidenced by a p-value of 0.000 <0.05 with a positive correlation of 0.569 in the moderate category. These results indicate a correlation between family support variables and quality of life, the better the family support, the higher the patient's quality of life. Recommendations for patients and families are expected to provide insight into the importance of family support in the quality of life of cancer patients, especially those undergoing chemotherapy. Therefore, families are expected to explore information and learn about what kind of support for the patient's quality of life.

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