Research Article

The Relationship Between Quality of Life and Psychological Well-Being Among Breast Cancer Patients at RSUD K.R.M.T Wongsonegoro Semarang

Pricillia Veronica [1*] , Mariyati [2] Emilia Puspitasari [3]

1. Nursing Study Program, Universitas Widya Husada Semarang, Indonesia; e-mail : pricilvero@gmail.com
2. Nursing Study Program, Universitas Widya Husada Semarang, Indonesia; e-mail : maryhamasah@gmail.com
3. Nursing Study Program, Universitas Widya Husada Semarang, Indonesia; e-mail : maryhamasah@gmail.com
* Corresponding Author: pricilvero@gmail.com

Abstract. Breast cancer is the growth of new tissue as a result of the proliferation (excessive growth) of abnormal cells that can attack and damage other tissues causing the growth of new tissue. Breast cancer is also included in the deadly diseases and suffered by most women. Breast cancer treatment has negative side effects in the form of physical impacts such as nausea, vomiting, fatigue, and psychological impacts such as anxiety, stress, and depression. This study is to determine the relationship between quality of life and psychological well-being in breast cancer patients. This study uses a quantitative method with 47 respondents and the criteria are able to communicate verbally, have composmentis awareness and are cooperative and willing to sign informed consent. All analyses use Spearman Rank. With ethical number 068 / Kom.EtikRSWN / VI / 2025. The results show that. According to the results of the Spearman rank statistical test, it shows a significant relationship of 0.000 <0.05 and a coefficient of +0.718, which indicates a positive relationship with strong strength. The better the quality of life received by breast cancer patients, the higher their psychological well-being.

Keywords : Breast Cancer; Coping Strategies; Psychological Well-being; Quality of Life; Relationship.

1. Background

Cancer is the growth of new tissue as a result of the proliferation (excessive growth) of abnormal cells that can invade and damage other tissues, causing new tissue growth. Because this disease usually does not show early symptoms when it develops, cancer often causes death (Khairy, 2022). Cancer has a significant impact on those affected, both physically, psychologically, and socially. Physical problems faced by cancer patients include pain and difficulty sleeping. Psychologically, patients feel confused, depressed, anxious, helpless, guilty, and lonely (Akel et al., 2023).

Globocan data states that in 2020, the World Health Organization (WHO) stated that as many as 7.8 million women had been diagnosed with breast cancer in the past 5 years, making breast cancer the most common cancer in the world (WHO, 2021). *The Global Burden of Cancer* (GLOBOCAN) 2023 data stated that breast cancer is the most common type of cancer in Indonesia, followed by cervical cancer and lung cancer. The number of cancer cases in Indonesia was 396.91 cases, with breast cancer incidence and total deaths of 65,858 (16.6%) and 22,430 (9.6%), respectively. The number of breast cancer sufferers in Indonesia continues to increase and this number is expected to increase to 89,512 cases by 2040 (I. et al., 2020). Breast cancer cases visiting health care facilities in Central Java in 2021 were 8,287 cases, and in 2022 this number increased to 10,503 cases (Central Java Health Office, 2023). According to data from the Semarang City Health Office, there were 800 breast cancer cases in Semarang City in 2023, with the highest number of breast cancer cases in the Kedungmundu Community Health Center area, with 79 cases (Kurnisari et al., 2023).

Cancer affects all aspects of a patient's life, particularly the physical, psychological, and spiritual aspects. Patients experience physical pain, fatigue, and decreased physical function,

and these conditions can lead to psychological problems. Diagnosis, treatment, and fear of recurrence can cause psychological problems for breast cancer patients, impacting their quality of life (Salvetti et al., 2020).

According to the World Health Organization (WHO), quality of life is a person's perception of their life based on societal norms and culture related to standards, expectations, concerns, and goals throughout their life. Quality of life is often defined as a component of happiness and satisfaction with life. However, this quality of life varies from person to person because it is influenced by many factors, such as finances, security, life satisfaction, health, physical function, housing conditions, social support, and social networks. A healthy person will have a good quality of life, and a good quality of life will certainly support health (Siwi et al., 2021). In a study (Muslimah & Rahmawati, 2018), quality of life, viewed from the psychological aspect, was categorized as low in adult breast cancer patients (52%).

Psychological well-being is the full achievement of psychological potential and a condition of an individual who can accept his/her strengths and weaknesses, have a purpose in life, develop positive relationships with others, have an independent personality, be able to control the environment, and have good personal growth (Ahmad et al., 2025).

The psychological impact experienced by cancer patients is a feeling of helplessness. This helplessness manifests in emotional disturbances such as crying. Other psychological impacts include anxiety due to worry about the impact of treatment and shame due to having cancer. Individuals with high levels of psychological well-being are better able to control themselves and cope better with various life events. Individuals with low psychological well-being tend to view their lives as low and perceive events as unpleasant, leading to unpleasant emotions such as anxiety, depression, and anger (Collins et al., 2021).

Based on a survey conducted by researchers, namely by interviewing 3 respondents on breast cancer patients. The results of the interviews conducted were that there was 1 respondent who found the patient's quality of life disturbed, because the patient found it difficult to carry out daily activities, the patient felt helpless and felt ashamed to bother her family and the patient also said she wanted to stop chemotherapy treatment because she had resigned herself to her illness and the distance was very far from home and economic limitations. and there were 2 respondents who were undergoing chemotherapy who were found to experience depression, namely the patient said she had no confidence, felt sad, had no enthusiasm for living life and the patient looked gloomy. From the results of the researcher's survey obtained through interviews, the researcher was interested in conducting research on the relationship between quality of life and psychological well-being in breast cancer patients.

2. Theoretical Study

Definition of Breast Cancer

Breast cancer is a malignant tumor that attacks the area around the breast and spreads rapidly throughout the body. This tumor can develop in the milk glands, ducts, and supporting breast tissue (fat and connective tissue), and can also grow throughout the body. Breast cancer causes the highest mortality rate in women, and its epidemiology is spreading uncontrollably. The incidence of breast cancer is also quite high both internationally and domestically (Pingkan et al., 2024).

Breast cancer is a malignant tumor, abnormal growth of breast tissue accompanied by hyperplasia and uncoordinated growth of normal tissue, infiltrative and destructive growth that metastasizes and can continue to grow excessively even after the cessation of the stimulus causing the change (Septiantoro, 2024).

Definition of Quality of Life

Quality of life is a subjective measure of well-being, individual freedom, and how well or poorly a person is doing. Quality of life is a measure of a chronically ill person's ability to perform normal activities while taking medication. It also measures how much the disease interferes with daily activities, such as bathing, eating, dressing, and moving independently without assistance (Siwi et al., 2021).

Definition of Psychological Well-being

According to (Ayu & Mujiasih, 2022), psychological well-being is a condition where a person can accept themselves as they are, can build close and warm relationships with others, have independence when experiencing social pressure, have self-control and social skills, and actualize their potential. Psychological well-being, according to (Leuwol et al., 2023) , is related

to a person's ability to develop adaptive coping strategies, where those with high psychological well-being scores will develop better adaptive coping strategies.

3. Research Methods

This study used a quantitative method and an analytical survey design with a cross-sectional approach. This study involved 47 respondents with a total sampling method. Data collection techniques used a questionnaire sheet, obtained from observations and interviews. The research instrument used a questionnaire sheet containing respondent identity, questions regarding quality of life, and questions regarding psychological well-being. The data processing method in this study was through the results of respondents to be processed into Excel data and then processed using SPSS. Data analysis used the Spearman Rank test. The study was conducted at KRMT Wongsonegoro Regional General Hospital, Semarang, and obtained ethical clearance with No. 035 / Kom.EtikRSWN / V / 2024.

The results of the EORTC-QLQ C30 quality of life questionnaire sheet with a validity test obtained a value of >0.70 so that it can be said that all questions contained in the EORTC-QLQ C30 questionnaire are valid (Noviyani et al., 2021).

The results of the RYFF Psyhosocial Well-Being psychological well-being questionnaire sheet with a validity test obtained a value of >0.05 so that it can be said that all the questions contained in the RYFF Psyhosocial Well-Being questionnaire are valid (Zahroh, 2024).

4. Results And Discussion

Respondent Identity

Table 1 Respondent Identity.

Respondent Identity Age	Frequency (n)	Percentage (%)
< 25 Years	1	2.1
25 – 30 Years	12	25.5
> 30 Years	34	72.3
Education		
Elementary School	22	46.8
Elementary School	17	36.2
SENIOR HIGH SCHOOL	3	6.4
College	5	10.6
Work		
Doesn't work	33	70.2
Work	14	29.8
Marital status		
Marry	32	68.1
Divorced on/off	14	29.8
Bachelor	1	2.1
Income		
<Rp. 2,000,000	42	89.4
Rp. 2,000,000-4,600,000	5	10.6
Cancer Stage		
Stage 2	12	25.5
Stage 3	18	38.3
Stage 4	17	36.2
Types of treatment		
Chemotherapy	42	89.4
Operation	5	10.6

This study can be analyzed there are 47 respondents, the results of the respondent's identity regarding age are concluded as follows: 1 respondent (2.1%) is aged <25 years, 12 respondents (25.5%) are aged 25 to 30 years, and there are 34 respondents (72.3%) who are aged >30 years. Based on the results of the respondent's identity regarding education, it is concluded that there are 22 respondents (46.8%) is elementary school education, 17 respondents (36.2%) are junior high school education, 3 respondents (6.4%) with the latest education of high school, and college there are 5 respondents (10.6%). The results of the

identity of respondents to the above occupations, show that there are 33 respondents (70.2%) are unemployed respondents and there are 14 respondents (29.8%) including employed respondents. The results of the identity of respondents to the marital status above, show that there are 32 respondents (68.1%) are married, 14 respondents (29.8%) are divorced on / off, 1 respondent (2.1%) is single. The results of the identity of respondents to income 42 respondents (89.4%) have income <Rp. 2,000,000 and there are 5 respondents (10.6%) are income Rp. 2,000,000-4,600,000. The results of respondents regarding the stage of cancer above 12 respondents (25.5%) were stage 2, 18 respondents (38.3%) were stage 3, 17 respondents (36.2%) were stage 4. The results of respondents' identity regarding the type of treatment were 42 (89.4%) were chemotherapy and 5 respondents (10.6%) were surgery.

Univariate Analysis

Table 2 Univariate Analysis.

Variables	Frequency (n)	Percentage (%)
Quality of life		
Bad	3	6.4
Currently	26	55.3
Good	18	38.3
Psychological well-being		
Low	3	6.4
Currently	18	38.3
Tall	26	55.3

Based on the research conducted by the researcher, there were 47 respondents, 26 of whom (55.3%) had a moderate quality of life. There were 18 respondents (38.3%) with a good quality of life and 3 respondents (6.4%) with a poor quality of life. Respondents with high psychological well-being were 26 people (55.3%), there were 18 respondents (38.3%) with moderate psychological well-being and there were 3 respondents (6.4%) with poor psychological well-being.

Bivariate Analysis

Table 3 Bivariate Analysis.

Quality of Life	Low		Currently		Tall		Total		r	P value
	F	%	F	%	F	%	F	%		
Bad	1	33.3%	2	66.7%	0	0.0%	3	100		
Currently	2	7.7%	16	61.5%	8	30.8%	26	100		
									0.718	0,000
Good	0	0.0%	0	0.0%	18	100.0%	18	100		
Total	3	6.4%	18	38.3%	26	55.3%	47	100		

The statistical data presented in the table above shows that the results of the cross-tabulation between quality and psychological well-being include respondents with poor quality of life with low psychological well-being as many as 1 respondent (33.3%), with moderate quality of life as many as 2 respondents (7.7%). Respondents with moderate quality with low psychological well-being were 2 respondents (7.7%), with moderate well-being were 16 respondents (61.5%), with high well-being were 8 respondents (30.8%). Respondents with good quality of life with high well-being were 18 respondents (100%).

The Spearman rank test on the variable "quality of life" with "psychological well-being" is known to have a P value of 0.000 ≤ (0.05), so it can be concluded that Ho is rejected and Ha is accepted, which means there is a relationship between quality of life and psychological well-being in breast cancer patients at KRMT Wongsonegoro Hospital Semarang. With an *r*

value of 0.718 obtained, which indicates that the correlation strength is strong (0.600-0.799) with a positive direction, this indicates that there is a correlation with a unidirectional interpretation. This means that the better the quality of life lived, the better the psychological well-being of breast cancer patients. So it can be concluded that there is a significant relationship between quality of life and psychological well-being in breast cancer patients at KRMT Wongsonegoro Hospital Semarang.

Discussion
Respondent Characteristics
The results show that of the 47 respondents, the majority of respondents were aged <30 years with 34 people (72.3%) included in the late elderly age group. According to research by (Di & Rcbadak, 2024) Respondents included in the late elderly age, Cell and tissue function in the body tends to decline with age. Cell accumulation can occur, preventing cell repair and causing damage over time. As a result, the human immune system gradually becomes susceptible to degenerative diseases such as cancer. The last education was elementary school for 32 people (46.8%). This shows that the average respondent's education is quite low with the last level of education being elementary school. Education greatly influences a person's attitude and behavior. Occupation shows that 33 people are unemployed (70.2%). This shows that the respondents' occupation is as a housewife where lack of physical activity is a risk factor for cancer because physical activity is related to high insulin in the body which can form IGF-1 or Growth factor-1, IGF-1 is a procarcinogen by reducing cell death and encouraging cell growth. Marital status was married with 32 people (68.1%) included in the married status group. According to research (Study et al., 2024) the characteristics of the marital status of the majority of respondents were married, which explains that husband/wife partners can be a good source of psychosocial support received by patients, where patients can have someone to discuss and face all processes together. Respondents' income was <Rp. 2,000,000 with 42 people (89.4%). This shows that the average respondent's income is quite low. According to this study, in accordance with research (Priority, 2022), the income range of Rp. 1,200,000-Rp. 2,000,000 per month was 183 respondents (63.8%). According to (JOHNSON, 2021) happiness is a state of well- *being* or contentment, namely a pleasant satisfaction that arises when an individual's needs and expectations are met, an individual's ability to enjoy positive and negative experiences, and happiness is highly dependent on the attitude of accepting and enjoying the circumstances of others what they have. The stage of the respondents' cancer was stage 3 with 18 people (38.3%). This indicates that the cancer is advanced and has spread to the lymph nodes or breast tissue (chest wall/skin), but not to distant organs (Di & Rcbadak, 2024) .

It is known that the type of treatment undergone by the majority of cancer patients was chemotherapy, with 42 (89.4%). The effects of chemotherapy are the most frightening. Chemotherapy drugs aim to kill fast-growing cancer cells, but they can also affect normal cells. Side effects of chemotherapy drugs can affect various cells. In addition, side effects of some chemotherapy drugs can affect the kidneys, heart, liver, lungs, and nervous system. Chemotherapy must be administered with caution considering these potential effects. The time needed for side effects to subside will decrease over time, although the time needed varies depending on the drug administered. (Kustanto et al., 2023) .

Quality of Life
The results showed that 47 respondents were obtained as many as 26 people (55.3%) with moderate quality. The results of interviews with 3 people, found that 1 patient found that the patient's quality of life was disturbed, because the patient found it difficult to carry out daily activities, the patient felt helpless and felt ashamed to bother his family and the patient also said he wanted to stop chemotherapy treatment because he had resigned himself to his illness and the distance was very far from home and the patient's economic limitations. And 2 patients found that their lives were useless, depressed, angry and felt hopeless about their lives.

This indicates that the majority of respondents had a moderate quality of life. A moderate quality of life can have a broad impact on helping individuals achieve overall well-being. It not only improves physical and mental health but also facilitates success in work, social relationships, and the ability to face life's challenges. With a moderate quality of life, individuals are better able to manage stress, overcome obstacles, and achieve their goals, ultimately supporting long-term happiness and well-being. According to (Rusdi et al., 2024), quality of life is defined as an individual's balance and fulfillment in various aspects of life, including physical, mental, social, and environmental well-being. This moderate quality

typically refers to a person's level of satisfaction with their overall life situation, which encompasses various factors that influence well-being (Setiawan et al., 2021).

The results of this study indicate that quality of life is a crucial metric for cancer patients undergoing treatment. Their quality of life declines as they face health problems related to their disease and the therapy they undergo, as well as the side effects of chemotherapy (Rahayu & Suprapti, 2021).

Psychological Well-being

The results showed that of the 47 respondents, 26 (55.3%) had high levels of well-being. Interviews with three patients revealed that one patient expressed anxiety due to their illness. Two patients undergoing chemotherapy were found to be depressed, reporting a lack of self-confidence, sadness, a lack of enthusiasm for life, and a gloomy appearance. The results of this study indicate high levels of psychological well-being, which aligns with research (Priority, 2022). which shows that most respondents have high psychological well-being because cancer patients can accept various aspects of themselves, both positive and negative, are able to establish warm relationships with others, care about the needs and welfare of others, do not depend on other people's judgments to make their own decisions, have a strong interest in things outside themselves and are able to be independent and can participate in various activities and are able to control them, have direction and goals to be achieved in their lives, and consider that their lives are meaningful and significant, both in the past, present, and future.

Psychological issues are common after a breast cancer diagnosis and during treatment. Respondents' experiences stem from fear of potential treatment side effects, such as hair loss, fatigue, nausea, and fear of death. This is supported by research by Her, which suggests that psychological distress (anxiety, stress, and depression) in breast cancer patients stems from worry about the effects of treatment, fear of the severity of the cancer, and fear of facing a terminal illness (Collins et al., 2021).

The Relationship between Quality of Life and Psychological Well-being

The results of this study are obtained from the table above, it can be seen that the quality of life with psychological well-being includes respondents with poor quality of life with low psychological well-being as many as 1 respondent (33.3%), with moderate quality of life as many as 2 respondents (7.7%). Respondents who have moderate quality with low psychological well-being are 2 respondents (7.7%), with moderate well-being are 16 respondents (61.5%), with high well-being are 8 respondents (30.8%). Respondents who have good quality of life with high well-being are 18 respondents (100%).

The results of the analysis of this study using the Spearman rank statistical test on the variable "quality of life" with "psychological well-being" are known to have a P value of 0.000 ≤ (0.05), so it can be concluded that Ho is rejected and Ha is accepted, which means there is a relationship between the quality of life in breast cancer patients.

Quality of life in breast cancer patients reflects an individual's perception of their overall health, encompassing physical function, emotional well-being, social relationships, and the ability to perform daily tasks. Decreased quality of life, particularly in the physical and social dimensions, is associated with increased psychological distress. Patients experiencing pain, fatigue, and activity limitations tend to have lower levels of psychological well-being.

Conversely, patients with a good quality of life demonstrate higher levels of psychological well-being. Adequate social support, self-acceptance of the condition, and adaptive coping skills play a crucial role in maintaining quality of life and psychological balance. Individuals who adapt positively tend to have a greater sense of optimism, self-control, and a greater sense of meaning in life despite chronic illness.

Thus, there is a significant relationship between quality of life and psychological well-being in breast cancer patients. Improving quality of life through a holistic care approach, physical symptom management, and psychosocial interventions are important strategies for improving patient psychological well-being (Lee & Kim, 2020).

5. Conclusion And Suggestions

This study concluded that there was a positive relationship between quality of life and psychological well-being in breast cancer patients at KRMT Wongsonegoro Hospital. This was based on the results of the Spearman rank statistic test with a p-value of 0.000 (≤ 0.05), which means significant, and a correlation value of +0.718, which indicates a positive

relationship with strong strength. Thus, the better the quality of life received by breast cancer patients, the higher their psychological well-being.

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