



The Relationship Between Body Image and Quality of Life in Breast Cancer Patients at H. Adam Malik Center General Hospital Medan City

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Abstract

Quality of life and body image is one of the most important outcomes to monitor in breast cancer patients. A better understanding of the quality of life and body image in women with breast cancer can assist in developing and improving therapeutic and treatment interventions in service delivery and care. This study aims to analyze the relationship between body image and quality of life in breast cancer patients. The research design used was a cross-sectional study. The research sampling technique used total sampling. The sample in this study amounted to 105 respondents. The instrument used to measure body image is the BIS (Body Image Scale) and quality of life using the EORTC QLQ BR-45 instrument (The European Organization For Research and Treatment of Cancer Quality of Life Questionnaire). Data analysis in this study used the Spearman statistical test. The results of this study indicate that 65 respondents (61.9%) have a negative body image and 61 respondents (58.1%) have a moderate quality of life. The Spearman Rank test results obtained a correlation coefficient = 0.626 with a significance p-value = 0.000 < 0.05 (significance level). Based on this study, it can be concluded that there is a relationship between body image and quality of life in breast cancer patients. It is recommended to room nurses at the H. Adam Malik Medan General Hospital to pay attention to patient feelings by increasing their knowledge of holistic nursing concepts in nursing care and being able to provide information about the patient's condition and condition and provide motivation to breast cancer patients undergoing treatment to patients are more accepting of their body image.

Keywords: *Body Image, Breast cancer, Quality of life*

INTRODUCTION

Breast cancer is the most common cause and the leading cause of death caused by cancer (Erturhan Turk et al., 2018). Most women who have just been diagnosed with breast cancer complain of several symptoms, such as clinically relevant anxiety and depression and poor quality of life (QoL) (Maurer et al., 2021). Breast cancer survivors face several physical, psychological and social pressures besides fatigue, irritability, memory loss, decreased energy levels, recurring pain and decreased quality of life (Huang et al., 2017). In addition to physical changes, cancer also affects a woman's quality of life and body image (Bagheri et al., 2015).

The latest global data shows that 1.700.000 new breast cancer diagnoses are added annually. Approximately 25% of oncology diagnoses found in women are breast cancer

(Konieczny et al., 2020). Based on Globocan (IARC) data for 2020, breast cancer is the most common cause of death in women worldwide, with an estimated 16.6% of new cases per 100.000 women and 9.6% of deaths (Globocan, 2020). An estimated 2.1 million new cases of breast cancer were diagnosed in 2018, and the fifth leading cause of death, with an estimated 627.000 deaths (Yusoff et al., 2022).

Based on Globocan data for 2020, the number of new breast cancer cases reached 68,858 cases (16.6%) of a total of 396.914 new cancer cases in Indonesia. Meanwhile, deaths reached more than 22 thousand cases (Globocan, 2020). The prevalence of breast cancer patients at the H. Adam Malik General Hospital throughout 2017 treated 22.257 patients. There were 11,377 patients diagnosed with breast cancer, 10.666 outpatients, 607 inpatients, and 144 patients treated in the Emergency Room (ER). According to medical record data at Adam Malik General Hospital in Medan, in 2022, there will be 291 breast cancer patients and data on 120 breast cancer patients undergoing chemotherapy (RSUP H. Adam Malik Medan).

Quality of life plays an important role in breast cancer patient's recovery process and overall health (Ettridge et al., 2022). Patients' quality of life after breast cancer treatment is associated with body image, which is becoming increasingly important. After such treatment, women face many changes in their lives and experience many traumatic experiences from disability (Lundberg & Phoosuwan, 2022). However, the breast cancer group seems to continue to experience poorer quality of life, anxiety and will experience depression in the long term (Maurer et al., 2021). Factors affecting quality of life include age, occupation, education level, cancer therapy, duration of therapy, disease stage, economic condition, and physical activity (Larasati et al., 2022).

Body image is a complex post-treatment issue, especially for young women with breast cancer (Lundberg & Phoosuwan, 2022). In general, of the several treatments for breast cancer, mastectomy induces marked changes in body image and perceptions of femininity in women (Ettridge et al., 2022). Women's experience of changes in body image due to mastectomy raises psychosocial problems. Mastectomy causes physical changes and affects body image and quality of life. Negative psychological consequences accompany changes in body image. Body image recovery after mastectomy is crucial for the physical and mental quality of life (Lundberg et al., 2022).

Results of previous studies conducted by Konieczny et al., (2020) regarding the Quality of Life of Women with Breast Cancer and Socio-Demographic Factors show the results of research that a lower quality of life is found in women with a diagnosis of breast cancer. As they got older, the score of the respondent's quality of life in the areas of physical, sexual, and

hair loss decreased, while the symptoms of pain, insomnia, lack of appetite increased. The results of studies that align with this research were also carried out by Ettridge et al., (2022) regarding Body Image and Quality of Life in Women with Breast Cancer: Appreciating The Body and Its Functionality. The results of this study indicate that women with breast cancer who value their bodies and their functions have a better quality of life. In contrast, women who are dissatisfied with their bodies and appreciate them less have a worse quality of life.

Previous research conducted by Yusoff et al., (2022) regarding the Quality of Life of Women with Breast Cancer in a Tertiary Referral University Hospital shows that patients aged 30-39 years have a worse quality of life due to pain/discomfort compared to patients in the older age group, which significantly interferes with their daily activities and affect the anxiety/depression domain. Research conducted by Erturhan Turk et al., (2018) regarding The Effect on Quality of Life and Body Image of Mastectomy Among Breast Cancer Survivors shows that women with mastectomy have a negative effect on body image and quality of life compared to other types of treatment. Furthermore, research conducted by Wu et al., (2019) regarding Dynamic Changes Of Body Image And Quality Of Life In Breast Cancer Patients showed that patients who received total mastectomy without reconstruction were relatively stable compared to patients who underwent breast-conserving surgery and patients who underwent axillary lymph node dissection.

The results of the above study indicate that the quality of life of breast cancer patients at the H. Adam Malik Medan General Hospital differs greatly from previous studies. As seen at the H. Adam Malik General Hospital regarding the points of body image indicators on the quality of life, namely physical status, psychological status, social interaction and economic status. The low quality of life in breast cancer patients is associated with the possibility of negative body image based on body image assessment indicators, namely affective, cognitive, and behavioral.

METHOD

This type of research uses a quantitative method with a cross-sectional approach. This study aimed to determine the relationship between body image (affective, cognitive, and behavior) and quality of life in breast cancer patients. This research was conducted at the H. Adam Malik Medan General Hospital with a research period of January-June 2023.

The population in this study were all breast cancer patients treated at the H. Adam Malik Medan General Hospital during the study period, namely January 25 to February 15, 2023, with 105 patients. The sampling technique used in this study is total sampling. The inclusion

criteria in this study were: 1) female, 2) cancer stage 3 and 4, 3) type of action/therapy, 4) able to communicate well. So the number of samples in this study was 105 respondents.

The independent variable used in this research is body image. Body image is a combination of the thoughts and feelings you have about your body. Body image ranges between positive and negative experiences, and at different times positive experiences or negative experiences, or a combination of both (*National Eating Disorder Collaborations*, 2022). Furthermore, the dependent variable used in this study is quality of life. Quality of life is the perception of individuals of their position in life in the context of their culture, value system and their goals, expectations, standards and concerns (Kassianos, 2022).

The research instrument used in this study was a body image questionnaire using a questionnaire BIS (*Body Image Scale*) consisting of 10 question items. Furthermore, a quality of life questionnaire with a Questionnaire EORTC QLQ- BR45 (*The European Organisation for Research and Treatment of Cancer's Quality of Life Questionnaire*) consisting of 45 question items. Data analysis in this study used the Spearman statistical test to see the relationship between body image variables and quality of life with a significance level of 5% or 0.05 which was analyzed using the Statistical Program for Social Science (SPSS) computer software version 22.

RESULTS

The frequency distribution and percentage of respondent characteristic data at H. Adam Malik Medan General Hospital in breast cancer patients can be seen in Table 1. The following are:

Table 1. Distribution of frequency and percentage of data on the characteristics of respondents at the H. Adam Malik Central General Hospital in Medan (N=105)

Variable	f	%
Age		
26-35 years	3	2.9
36-45 years	43	41.0
46-55 years	51	48.5
56-65 years	8	7.6
Work		
State-owned enterprises	10	9.5
Trader	28	26.7
Farmer	17	16.2
Pensioner	4	3.8
Does not work	46	43.8
Marriage Status		
Married	97	92.4
Divorced	8	7.6
Cancer Stadium		
Stadium 3	63	60.0

Stadium 4	42	40.0
Therapy		
Chemotherapy	84	80.0
Surgery	21	20.0
Time Diagnosed		
2.5-3.5 years	84	80.0
>3.5-4.5 years	21	20.0
Body Weight		
Weight gain	0	0
weight loss	105	100
Religion		
Islamic	58	55.2
Christian	34	32.4
Catholic	13	12.4

Based on the research conducted, the distribution of the characteristics of the respondents was found in Table. 1, it was found that the majority of respondents aged 46-55 years amounted to 51 respondents (48.5%), and the lowest age 26-35 years amounted to 3 respondents (2.9%). Most patients with traders work as many as 28 respondents (26.7%), and the lowest with retired jobs 4 respondents (3.8%). The majority of respondents with high school education levels were 68 respondents (64.8%), and the lowest education level was junior high school, 16 respondents (15.2%).

Based on the respondents' marital status, most respondents were married, totaling 97 respondents (92%). Most patients were patients with stage 3, namely 63 respondents (60%). The length of time patients were diagnosed with breast cancer, with the majority being 2.5-3 years was 60 respondents (57.1%), and the lowest was >4 years, 1 respondent (1%).

Based on the therapy found at the time of the study, 84 respondents (80%) underwent chemotherapy, and 21 respondents (20.0%) had surgery, 105 respondents (100%) experienced weight loss. Data based on the religion adhered to by the respondents was dominated by Islamic as many as 58 respondents (55.2%).

The distribution of frequency and percentage of body image of patients and quality of life of breast cancer patients respondents at H. Adam Malik General Hospital Medan can be seen in Table 2. The following are:

Table 2. Distribution of frequency and percentage of body image and quality of life of respondents at H. Adam Malik Central General Hospital Medan (N=105)

Variable	f	%
Body Image		
Positive	40	38.1
Negative	65	61.9
Quality of Life		
Bad	44	41.9
Moderate	61	58.1
Good	0	0

Based on Table 2. The results showed that the majority of respondents had a negative body image, 65 respondents (61.9%) and the majority of respondents had a moderate quality of life, namely 61 respondents (58.1%).

The relationship between body image and quality of life in breast cancer patients at H. Adam Malik Medan General Hospital can be seen in Table 3. The following are:

Table 3. Relationship between body image and quality of life in breast cancer patients (N=105) at the Central General Hospital H. Adam Malik Medan

		Body Image	Quality of Life
Spearman's Rho	Body Image	Correlation Coefficient	.626
		Sig. (2-tailed)	.000
	Quality of Life	N	105
		Correlation Coefficient	.626
	Sig. (2-tailed)	.000	
	N	105	

Based on Table 3. The results of the Rank Spearman correlation test on body image with the quality of life, the value of r count is 0.626 > r table 0.19 with a p-value of 0.000 < 0.05, it can be concluded that body image and quality of life variables are significantly correlated. Based on the non-parametric correlation test table shown above, the correlation between the variables shows a positive correlation number of +0.626, and this means that an increase in body image is in the same direction as an increase in the quality of life of breast cancer patients, and vice versa. The value of r count is 0.626, and this shows the coefficient of strong correlation between body image and the quality of life of breast cancer patients.

DISCUSSION

1. Body Image of Breast Cancer Patients

Based on the results of the study, it was found that as many as 65 respondents experienced negative body image and 40 respondents experienced positive body image with the mean value of each affective (5.2), psychomotor (4.2), and cognitive (2.4) indicators. Based on these data, it shows that the body image of breast cancer patients at the H. Adam Malik Medan General Hospital mostly falls into the category of negative body image, with a total of 65 respondents.

Research conducted by Indriyanto et al., (2022) regarding the differences in body image before and after mastectomy in breast cancer clients showed that all respondents (100%) had a negative body image after mastectomy. Mastectomy surgery can cause changes in the body of people living with breast cancer and experience unpleasant conditions such as surgical scars,

pain, and swelling, causing worsening cognitive function or depressed mood, which leads to decreased quality of life.

In another research conducted by Haryati et al., (2019) regarding the relationship between body image and the quality of life of breast cancer patients undergoing chemotherapy, the results showed that body image was mostly in the moderate category, namely 22 respondents (73.3%), the medium category in this study was dominated by affective indicators as indicated by respondents who said respondents like the appearance of their bodies, patients never think about the appearance of their bodies, and respondents said they wore clothes that were easy to get and as they were.

Another research conducted by Fitri et al., (2018) regarding body image in female patients undergoing chemotherapy at the hospital showed the result that the body image in female patients undergoing chemotherapy was negative body image as many as 32 respondents (61.5%) dominated by affective indicators that the majority of respondents often felt disappointed with body changes 30 respondents (57.7%) due to illness/treatment process and 14 respondents (26.9%) always feel embarrassed about their appearance.

In women, physical attractiveness is positively correlated with happiness and self-esteem and negatively correlated with neurosis or anxiety. Women see their bodies as important because it is related to their level of self-satisfaction, respect from others, and sexual quality. A woman with a positive body image will feel perfect and loved. This is also inseparable from the culture of society, which considers that a beautiful woman is physically more attractive. So with a disease that changes a woman's physical appearance, she will have a negative view of her body and affect body image.

Biological factors, such as age, gender, and education, affect body image in breast cancer patients. Younger women will feel less comfortable with the changes that occur in the body during the disease process and treatment (Rezaei et al., 2016). This is supported by the results at the time of the study, the age of the respondents, namely between 36-45 years, consisted of 43 respondents. This is because, at the age of 35, an imbalance begins to occur in the levels of estrogen and progesterone in the body, thereby activating the growth of cancer cells (Fitri et al., 2018). The results of this study were also supported by a study conducted by Hopwood et al., (2001), which said that breast cancer patients in women aged <50 years had greater body image problems compared to women aged >50 years.

The results of the study found that the majority of respondents' education level was high school, education level as many as 68 respondents. This result is from the research conducted by Park et al., (2021), which shows the majority of respondents with a high school education

level or lower. The level of education and knowledge of people living with breast cancer will affect compliance with the disease and how to manage stress. Someone who is more educated will have broader knowledge that allows the patient to control himself in overcoming the problems at hand, has high self-confidence, has the right estimate of how to deal with events, and can reduce anxiety to help the individual in make decisions. Decision on the problem at hand (Fitri et al., 2018). People living with Breast cancer with lower levels of education tend to experience negative body image, possibly creating avoidance or denial mechanisms that will cause psychological distress (Rezaei et al., 2016).

Psychological factors that affect the body image of breast cancer patients include concerns about changes in the body. This is because the treatments produce side effects related to the visible appearance of the breasts, such as scarring, alopecia, weight gain/fluctuation, and muscle loss/weakness (Brunet et al., 2022). This is by research data as many as 105 respondents (100%) experienced weight loss, this is by the results of research conducted by Indryani et al., (2022), which shows the results of 71.4% of respondents who were diagnosed with cancer experienced weight loss.

The diagnosis and treatment of breast cancer hurts a woman's physical and psychological well-being because it can trigger several things, including changes that occur in body image (Pereira et al., 2022). Changes in body image as a result of treatment are significant in breast cancer survivors, affecting survival (Fiser et al., 2021). This is by research data of 84 respondents diagnosed with breast cancer for 2.5-3.5 years. According to Hopwood (2001) breast cancer patients who have been diagnosed for > 6 months have a worse body image because it is influenced by environmental factors and treatment measures that have been taken.

This result is by the results of research conducted by Haryati et al., (2019). Regarding the relationship between body image and quality of life in breast cancer patients, it was shown that respondents who were diagnosed 1-6 years experienced negative body image. Negative body image in this study was dominated by affective indicators as indicated by respondents who said respondents liked their body appearance, patients never thought about their body appearance, and respondents said they wore clothes that were easy to get and what they are.

2. Quality of Life of Breast Cancer Patients

Based on the results of the study, it was found that as many as 61 respondents experienced a moderate quality of life, and as many as 44 respondents experienced a poor quality of life. The results showed that the average score for the functional scale was dominated by cognitive function (22 ± 57.2), emotional scale (21.3 ± 48.3), role function scale (12.8 ± 30.5), social function scale (8.5 ± 37.5) and physical function scale (8.1 ± 14.8), and for the

average score of the symptom scale dominated by hair loss (14.8 ± 91.1), sexual symptoms (9.6 ± 14.9), breast symptoms (8.9 ± 92.5), side effects of therapy (6.9 ± 53.9), symptoms of therapy endocrine symptoms (4.53 ± 16.1), arm symptoms (4.50 ± 44.8) and mucositis symptoms (3.5 ± 2.7) with an overall average score of 504.8 so that they are categorized into the moderate quality of life. Based on the data above, it shows a high score on various dominants. It indicates the quality of life of breast cancer patients at the H. Adam Malik Medan General Hospital, including the moderate category, with 61 respondents.

This is by the results of research conducted by Al Zahrani et al., (2019) about the quality of life in breast cancer patients undergoing treatment at King Salman Hospital, Saudi Arabia which shows the results of the study showed an average score of physical well-being (7.65 ± 0.71), spiritual well-being (7.19 ± 0.66), psychological well-being (7.09 ± 0.30) and social welfare (7.02 ± 0.41), this shows a high score on various dominants and indicates poor quality of life.

Other research conducted by Tahshin et al., (2020) Regarding the quality of life in breast cancer patients, the results showed that patients >50 years of age obtained lower quality scores on functional scales (mean = 39.72), physical function (mean = 61.02) overall QOL (C-30). (mean=57.64) and emotional (BR-23) (mean=269.97) this indicates a poor quality of life.

Quality of life assessment is an important aspect of breast cancer patient outcomes because diagnosis, prognosis, and treatment can majorly impact quality of life (Alvarez-Pardo et al., 2022). Given the advances in the treatment of breast cancer in the field of medicine, so there are various kinds of treatment for breast cancer. In basic oncology procedures, there are 4 actions performed, namely surgery, chemotherapy, radiotherapy, and hormone therapy, so that there are many changes in the body and side effects of treatment (Kołodziejczyk et al., 2019). This is supported by the results of research based on therapy which was found at the time of the study there were 84 respondents doing chemotherapy. Several studies have shown that chemotherapy has a very large negative impact on the quality of life of cancer patients. The quality of life of each cancer patient undergoing chemotherapy differs from one another. This is due to the effects of disease and chemotherapy, which cause each patient to have a different outlook on life. Chemotherapy, as a palliative therapy, aims to improve the quality of life by relieving the symptoms of pain experienced by patients (Wahyuningsih, 2020).

Chemotherapy and radiation, which cause hair loss, will certainly reduce the self-confidence of people living with cancer because hair is a crown for women. Losing hair will increasingly make people living with cancer feel inferior. Nausea, vomiting, and decreased appetite will impact weight loss and weakness, which will further exacerbate the patient's

condition. In the long term, breast cancer patients' quality of life will increase after chemotherapy and radiotherapy treatment compared to patients not undergoing chemotherapy (Kumalasari et al., 2020).

Quality of life is one of the important outcome criteria in oncology because it affects the cure rate (Finck et al., 2018). Quality of life can predict better treatment outcomes (Hessari et al., 2020). Patients with a good quality of life will have a strong desire to recover, affecting their health status. Conversely, the desire to recover decreases when the quality of life decreases. To improve the quality of life and health outcomes, it is necessary to address the patient's socioeconomic needs, psychosocial needs, the results of cancer screening, and other general health problems (Ettridge et al., 2022).

3. Relationship between body image and quality of life in breast cancer patients

Based on the study's results, it was shown that out of 105 respondents, 40 respondents had a positive body image, 65 respondents had a negative body image, 61 respondents had a moderate quality of life category, and 44 respondents had a poor quality of life category.

The results of the Sperm Rank correlation test for the relationship between body image and quality of life obtained an r count of $0.626 > r$ table 0.19 and a p -value of $0.000 < 0.05$. It can be concluded that body image and quality of life variables are significantly correlated. Based on the non-parametric correlation test table shown above, the correlation between the variables shows a positive correlation number of $+0.626$, and this means that an increase in body image is in the same direction as an increase in the quality of life of breast cancer patients, and vice versa. The value of the correlation coefficient is 0.626 , this shows that the correlation coefficient is strong between body image and the quality of life of breast cancer patients.

This is in line with research conducted by Ettridge et al., (2022) regarding body image and quality of life in breast cancer patients, based on the results of body image analysis significantly associated with quality of life ($p < 0.01$). This shows that body image's positive and negative components are relevant to quality of life. Another research conducted by Limantara et al., (2021) regarding Quality of Life Post Mastectomy with and without Reconstruction of Breast Cancer Patients in Oncology at the Surabaya regional general hospital showed $p < 0.05$ which means there is a significant relationship.

Quality of life and body image is one of the most important outcomes to monitor in breast cancer patients. A better understanding of the quality of life and body image in women with breast cancer can assist in developing and improving therapeutic and treatment interventions in service delivery and care (Ettridge et al., 2022). Both quality of life and body image have been extensively explored in the breast cancer population and have been found to

vary according to the type of treatment, the woman's age at diagnosis, and the time since treatment or diagnosis (Ettridge et al., 2022).

CONCLUSION

Based on the results of research on the relationship between body image and quality of life in breast cancer patients at H. Adam Malik General Hospital in Medan, it can be concluded that 65 respondents (61.9%) had negative body image and 61 respondents (58.1%) have the moderate quality of life. There is a relationship between body image and quality of life with $p\text{-value}=0.000$ ($p<0.05$).

It is suggested that the H. Adam Malik Medan Central General Hospital be able to provide information to nurses in providing services at the hospital, especially the surgical and chemotherapy inpatient rooms at the H. Adam Malik Central General Hospital Medan that some patients in the inpatient and chemotherapy rooms have a negative image body that needs to be considered in providing health services.

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