

The Relationship Between Chemotherapy Effects and Body Image Disturbances in Carcinoma Mammae Patients at RSUD RAA Soewondo Pati

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Abstract. Chemotherapy in carcinoma mammae patients is known to cause significant physical and psychological side effects, which may affect body image. This study aims to examine the relationship between chemotherapy effects and body image disturbances in patients undergoing chemotherapy at RSUD RAA Soewondo Pati. A quantitative analytic design with a cross-sectional approach was used. A total of 53 respondents were selected using accidental sampling. The data collection employed validated questionnaires of chemotherapy effects and body image disturbances. The univariate analysis revealed that 39.6% of patients experienced severe chemotherapy effects, and 62.3% had negative body image disturbances. The bivariate analysis using the Chi-Square test showed a significant relationship between chemotherapy effects and body image disturbances ($p = 0.029$). The study concludes that chemotherapy effects significantly influence patients' perception of their body image. It highlights the importance of holistic nursing care that addresses both physical and psychosocial aspects of cancer treatment.

Keywords: Chemotherapy, Body Image, Carcinoma Mammae, Psychological Impact, Breast Cancer

INTRODUCTION

Cancer is a leading cause of death worldwide, accounting for more than 10 million deaths each year. Carcinoma mammae (breast cancer) is the most common type of cancer affecting women, with 2.3 million new cases and 685,000 deaths annually on a global scale (WHO, 2023). In Indonesia, carcinoma mammae is the most prevalent cancer among women, with 65,858 new cases and 22,430 deaths per year (GLOBOCAN, 2022), and an incidence rate of 44 per 100,000 female population (Kemenkes RI, 2023). In Central Java, carcinoma mammae cases increased by 27% in 2022, with the highest prevalence in Banyumas Regency (39.7%) and 1.9% or 4,487 cases reported in Pati Regency (Dinkes Jateng, 2023). Data from the Pati District Health Office in 2024 recorded 816 cases of carcinoma mammae detected through the SADANIS screening program. RSUD RAA Soewondo Pati treated 357 patients undergoing active chemotherapy in the Gading 1 ward during the same year.

Chemotherapy, as the main treatment for carcinoma mammae, effectively kills cancer cells but also causes physical side effects such as hair loss, skin darkening, and nausea, as well as psychological effects like body image disturbances (Amperaningsih et al., 2023). Studies have shown that more than 60% of patients experience body image disturbances after chemotherapy (Irnawati & Ambiya, 2020). A preliminary study at RSUD RAA Soewondo Pati found similar results, including discomfort with appearance and decreased self-confidence. This phenomenon highlights the importance of addressing not only the physical aspects of cancer treatment but also the psychological well-being of patients. Therefore, this study aims to explore the relationship between chemotherapy effects and body image disturbances in carcinoma mammae patients at RSUD RAA Soewondo Pati.

METHODS

This was a quantitative analytic study using a cross-sectional approach. The population consisted of 357 carcinoma mammae patients at RSUD RAA Soewondo Pati who had undergone chemotherapy. Using Arikunto's sampling formula, 53 respondents were selected via accidental sampling. Data were collected using structured questionnaires: Chemotherapy Effect Questionnaire (10 items) – scored 0–10 (mild: 0–4, moderate: 5–7, severe: 8–10). Body Image Scale (BIS, 10 items) –

scored 0–10 (positive: 0–5, negative: 6–10). Data were analyzed using univariate and bivariate (Chi-Square) analysis with a significance level of $p < 0.05$.

RESULTS AND DISCUSSION

Table 1. Chemotherapy Effect Level

Effect Level	Frequency (f)	Percentage (%)
Mild	12	22,6 %
Moderate	25	47,2 %
Severe	16	30,2 %
Total	53	100,0%

Based on the analysis of Table 1, the study conducted on 53 respondents with carcinoma mammae undergoing chemotherapy at RSUD RAA Soewondo Pati showed that the highest distribution of chemotherapy effects was in the moderate chemotherapy effects group, experienced by 25 respondents (47.2%), while the lowest distribution was in the mild chemotherapy effects group, experienced by 12 respondents (22.6%).

Table 2. Body Image Disturbance Level

Body Image	Frequency (f)	Percentage (%)
Positive	31	58,5 %
Negative	22	41,5 %
Total	53	100,0%

Based on the analysis of Table 2, the research conducted on 53 respondents with carcinoma mammae at RSUD RAA Soewondo Pati showed that the majority experienced positive body image disturbance, totaling 31 respondents (58.5%), while negative body image disturbance was experienced by 22 respondents (41.5%).

Table 3. Relationship Between Chemotherapy Effects and Body Image Disturbances

Chemotherapy Effect	Positive Image	Negative Image	Total
Mild	8	4	12
Moderate	18	7	25
Severe	5	11	16
Total	31	22	12

Chi-Square Test Result : $p = 0.029$ (significant)

Among the 53 respondents, the most common combination was moderate chemotherapy effects with positive body image disturbance, found in 18 respondents (34.0%). Meanwhile, negative body image disturbance was most frequently observed in patients with severe chemotherapy effects, totaling 11 respondents (20.8%). Overall, 31 respondents (58.5%) experienced positive body image disturbance, while 22 respondents (41.5%) experienced negative body image disturbance.

DISCUSSION:

Bivariate analysis using the Chi-Square test revealed a significant relationship between the effects of chemotherapy and body image disturbance among patients with carcinoma mammae ($p = 0.029$; $p < 0.05$). The majority of respondents experienced moderate chemotherapy effects (47.2%), with most of them showing a positive body image (34.0%). However, as the severity of chemotherapy effects increased, the proportion of patients with negative body image also rose, particularly among those experiencing severe effects (20.8%).

These findings are consistent with the theory of *body image disturbance*, which suggests that drastic physical changes such as hair loss, fatigue, and skin alterations lead to emotional distress and negatively impact body perception (Wahyudi, 2023). Supporting this, Simamora (2024), found that emotional support from family members can significantly reduce the risk of body image disturbance. Local factors such as low education levels, unemployment, and the number of chemotherapy cycles may also influence patients' perception of their bodies.

A study by Wilya et al. (2024) further supports these results, with a p-value of 0.001 indicating a strong correlation between chemotherapy effects and body image, which is closely linked to patients' quality of life. Patients who accept physical changes as part of the treatment process tend to adapt better

and maintain psychological well-being. Similarly, Luthfia et al. (2024) highlighted the importance of spiritual well-being in promoting positive body image, while Utomo et al. (2022) emphasized the role of self-esteem in fostering acceptance and maintaining interpersonal relationships.

Irnowati & Ambiya (2020) reported that 72.7% of breast cancer patients undergoing chemotherapy experienced negative body image disturbances, which aligned with increased intensity of side effects. Psychological factors such as anxiety and depression are strong mediators of body image disturbance (Muslikah, 2019). Therefore, body image is a crucial aspect of cancer care. Comprehensive interventions that address psychological, social, and spiritual dimensions along with family and healthcare support are essential to help patients accept bodily changes, improve their treatment experience, and enhance their quality of life (Arfina et al., 2022).

CONCLUSION

There is a significant relationship between chemotherapy effects and body image disturbances in carcinoma mammae patients. This implies the need for integrated nursing interventions that address both physical side effects and psychosocial support to improve overall quality of life.

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